RAILROAD MAGAZINE

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RAILROAD MAGAZINE

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Less Than Carload Lots

ONE DAY in the winter of 1918, John G. Castleberry deadheaded from Mecca, Calif., to the Southern Pacific station at Beaumont, to take over a routine assignment as telegrapher there. From the same train stepped another new op for the Beaumont office: L. P. (Pat) Shutt, who had just left Palm Springs (now Garnet, Calif.). The two men, complete strangers, reported on Dec. 18, 1918.

A quarter of a century later, on the same date in 1943, Castleberry and Shutt celebrated an event unique in Espee records. Both of these veteran keymen were still on the job at Beaumont, after continuous service without a demerit, at the same depot where they reported together back in 1918.

* * *

BOXCAR SCHOOLHOUSE. At Bell Spring station near Ukiah, Calif., almost the entire population consists of the Northwestern Pacific section crew and their families. There was no schoolhouse for the youngsters until somebody got the bright idea of asking the NWP for aid. The company then donated a boxcar, which was remodeled and equipped with blackboards, stove, seats and windows. So now the boys and girls have a place in which to learn their three R's—reading, 'riting and 'rithmetic—thanks to the fourth R, the Railroad.

* * *

NEARLY 300 miles of loaded freight cars were used to fill a convoy of American ships which sailed from an Atlantic port some time ago, the cargo coming from 20 different points in U. S. A.

* * *

$10 FOR BORING A HOLE. W. A. Gieseking, D&RGW locomotive engineer on the Pueblo Division, has just been awarded $10 under the company's suggestion plan. All he did was to bore a hole. But this particular hole was in one end of a hand-operated locomotive grease-gun, thus permitting the tool to be filled by pneumatic grease-tanks instead of the time-wasting method of inserting grease by hand. Gieseking's idea helps to save time on the Rio Grande's handling of war trains.

SHERLOCK HOLMES himself would be puzzled by this one: A naval officer traveling to Montreal reported the loss of a handbag which he'd apparently overlooked when leaving his train. Three months went by with no trace of the luggage. Then a porter picked up a bag left on a bench in the waiting-room at the Montreal central station, and investigation proved it to be the naval officer's property. The amazed owner, to which it was returned, declares the original contents of the bag were intact, including a folding camera. T. P. Mooney, in charge of the station's lost and found department, is racking his brains over the mystery.

* * *

OFF-SCHEDULE tooting of a Nickel Plate engine whistle in the Cleveland yards not long ago startled residents of the neighborhood. They didn't know that the enginner was having what is usually motorists' trouble; his whistle was stuck, and was making quite a racket. Several people who heard the continuous shrill blasts rushed over to find out if the noise celebrated the signing of an Armistice.

* * *

CANADIAN PACIFIC men who handled Prime Minister Winston Churchill's special train when he was attending the Quebec Conference are telling a story that well illustrates Winnie's keen mind—and his interest in railways. The CPR six-car special, its Tuscan red exterior gleaming from plenty of spit-and-polish, met the visitor when he arrived, and Mr. Churchill immediately made a quick tour of the train.

In the corridor of the private car, *Mount Royal*, the Prime Minister stopped, opened one of the doors, looked in. Then he called to his daughter, who was accompanying him on his trip.

"See, Mary, this is my bedroom," he remarked. And it was—for the same car had been placed at Mr. Churchill's disposal on a previous visit to Canada in 1929. He had occupied the room fourteen years ago, and had remembered the car and its accommodations in every detail.

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Photo from D. O. McKellips, 4734 Edgewood Ave., Oakland, Calif.

GATEWAY to the scenic Feather River Canyon, shown above, lies just east of Oroville, Calif. Don Luis Arguello, who discovered the stream in 1820, named it *Rio de las Plumas* when he saw wild pigeon feathers floating on its surface

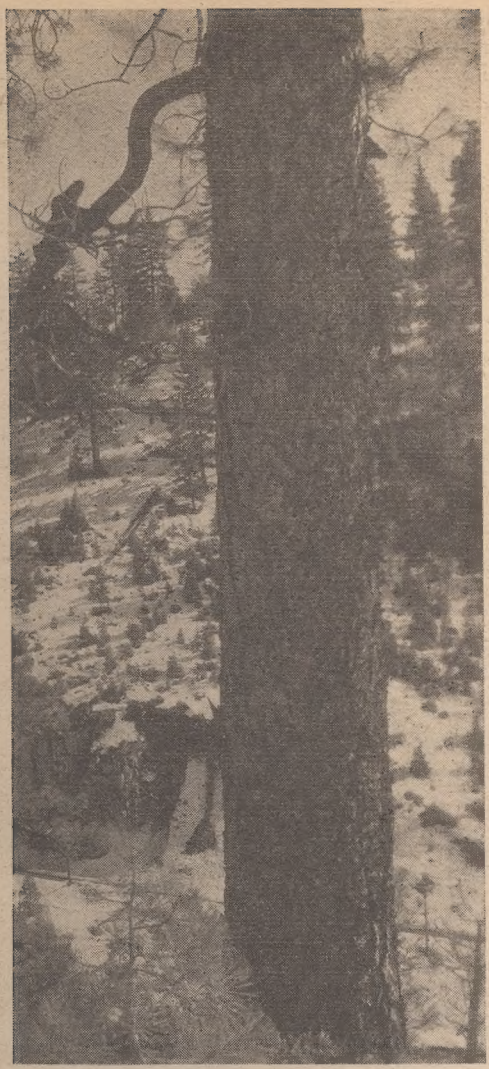
A FAINT clicking sound, followed by the words, "Dispatcher, Oroville," broke into a train order I had just begun to issue. The scene was a Western Pacific dispatchers' room and the man on the other end of the wire was undoubtedly Jones, our somewhat excitable operator at Oroville, Calif. Thinking that he wished to sign up a 31 order I had put out for second 78, I replied, "Dispatcher." His next words tumbled out like a waterfall in Feather River Canyon:

"First 78 was by here at 11:37 p.m!"

I answered calmly: "Yes, that's right."

"But First 78 was by here at 11:37 p.m.!" he repeated, almost screaming.

"Sure, Oroville. The sheet shows that.



Mountain Dispatcher

Putting Western Pacific Traffic Through the Rugged Feather River Canyon Is No Job for the Flatland Delayer

By PETER JOSSERAND
Western Pacific Dispatcher

Has Second 78 shown up yet?"

"No," broke in the op at Oroville yard, who was listening. "He's still here—I'm looking right at his markers."

"Then what was that went by here when the main was here?" said Jones.

"Has an eastbound train passed you since midnight?" I inquired quickly.

"Some train went by here through the siding while the main was here taking ice and water," he stammered. "They asked me what I had on the board; and I asked them who they were, and they said, 'First 78'; so I gave them a clearance and they left. I didn't notice that First 78 was by here before midnight. I—

"Break!" I stopped the op, reaching for the Berry Creek selector key and twisting it violently.

Something froze up inside me as I realized what had happened. The man at Oroville yard was not sitting there looking at Second 78's markers, for they were by Oroville—and without the restricting order which changed their meeting point with Extra 252 West from Berry Creek to Bidwell, creating a lap of authority.

There wasn't one chance in a thousand of catching Extra 252 West at Berry Creek, for he was already due by there; and even if he wasn't actually by, the operator would not be in the office, for I had sent him up to the east switch to keep Extra 252 West from heading in. Those two Mallets would hit on the one-percent grade, just about halfway between Berry Creek and Bloomer—there are no block signals on that crooked track. They wouldn't have a chance.

BEFORE going further, let me tell you something of the district I work.

Had it been daylight so that I could have seen Feather River Canyon as I came through on my way to Sacramento, where I had a job waiting as dispatcher on the Western Pacific, I would have en-

joyed the scenery. It's a beautiful country, wild and bold. But had I glimpsed the landscape beforehand, I might not have screwed up my courage to tackle "The Mountain," or Third Subdivision, which extends 118 miles between Oroville yard and Portola.

This mileage will probably bring a smile to the lips of flatland dispatchers, for it is a relatively short district. However, if my attempt to paint a word-picture of operating conditions on this stretch of railroad is successful, perhaps the smile will fade. Having worked districts hundreds of miles longer, with comparative ease, I have spent much time trying to analyze the reasons for this piece of track being the toughest and most aggravating stretch I have known.

Of course, it is not always so. Some days The Mountain behaves like Santa Claus. But more often it goes on a rampage, when nothing is right—not just in one section, but from end to end. And it switches from one state to the other without warning. The subdivision extends through territory so rugged that only here and there you can reach the right-of-way in any manner except by train or motorcar traveling on the rails. A highway runs through the canyon, but you can't get onto the track from the highway, even afoot, except at scattered points. Men who handle trains in Feather River Canyon are a tough lot—hardy, like pioneers. They have to be if they stay there. Scarcely a veteran in the canyon but can show you the scars of wrecks—pile-ups which they would not have survived except for a "sixth sense" which elevates them above the run-of-the-mill train and engine men. They are a breed that thrives on long hours, hardship and danger.

I had worked this district several

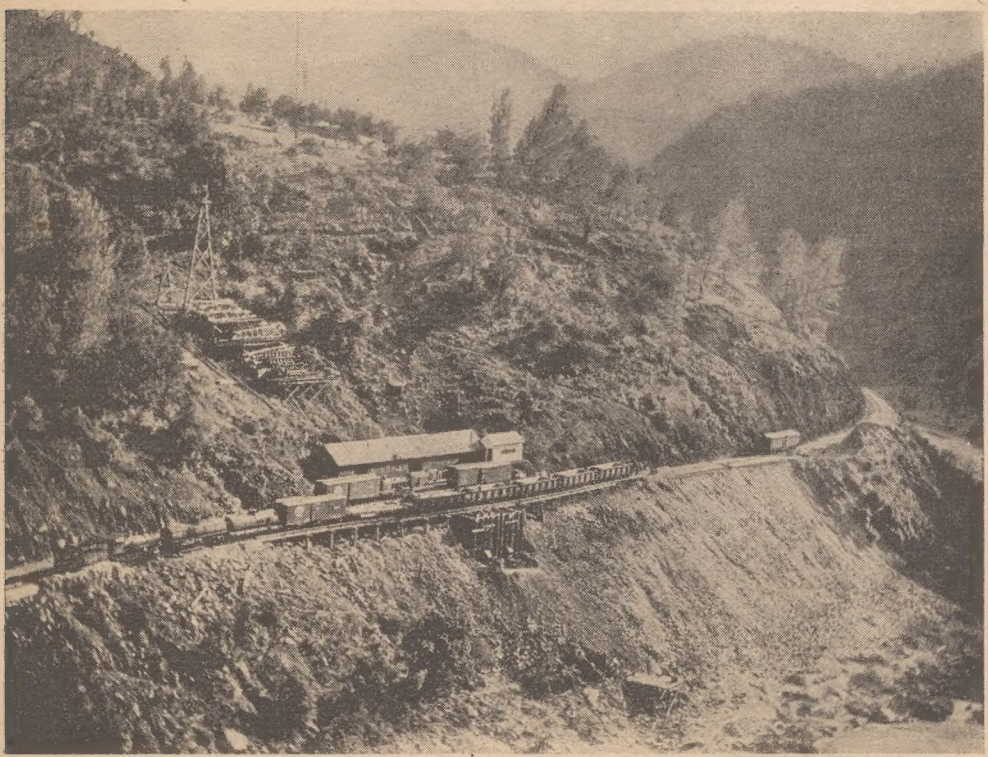
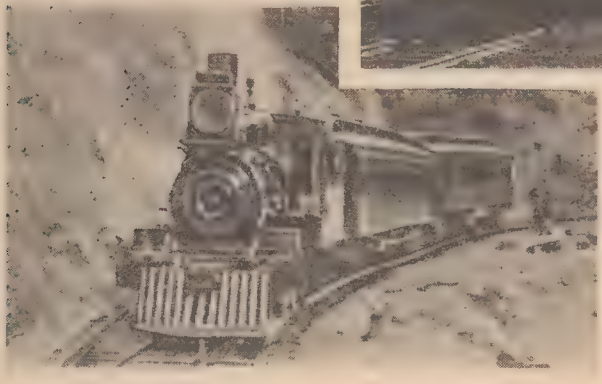


Photo from D. O. McKellips

GOULD interests built the Western Pacific to give the Denver & Rio Grande and Rio Grande Western an independent connecting line from Salt Lake City to San Francisco. Construction work was begun in 1905

TODAY, articulated giants like the 253, shown at right, handle 4000 tons in drag service, or 3750 ton reefer trains, up the canyon, unassisted. While the maximum eastbound grade has been held to one per cent, there are 261 curves in the 80 miles between Oroville and Keddie



FIRST passenger train to enter the Feather River Canyon made its rickety journey in 1909. Motive power was the Two Spot, acquired from the Butte Co. Ry. On August 22, 1910, service began between Oakland and Salt Lake City

Lower photo from D. O. McKellips

months before I ever saw it, and even then I came back with a mild case of jitters. Beginning at Oroville yard, the grade is somewhat less than one percent up to Bloomer. From there it climbs to Portola, never more than one percent compensated for curvature, and rarely so much as a fraction of a degree less. There are no humps. A boxcar turned loose at Portola would roll all the way to Oroville yard if it took the curves—and there is precious little tangent track. Spots where two trains could see each other in time to stop without hitting are practically non-existent—because of the curves and tunnels, of which there are thirty-three, ranging up to more than a mile in length —and with no block signals, the DS knows his work must be right, or they bump.

One interesting feature is "the loop" between Spring Garden and Massack. The engineers, determined to hold the grade to one percent, came to a spot where this was impossible; so they remedied the situation by constructing a circular piece of track which, without exceeding one percent, gains sufficient elevation to do the job, the track crossing over itself.

An engine is given what tonnage she can handle on the one percent, eliminating helper districts and greatly simplifying operating procedure. You might think of it as "allee same flatland district," but don't be deceived.

A common practice is to run drags uphill with two small locomotives; then each engine brings down a tonnage train. About all you need in the descent is some means of charging the brake pipe and controlling the brakes. The smallest engine can ease down the car limit in loads. Mallets, when not needed elsewhere, run down light for faster movement to protect symbol trains uphill. Of late, the huge trainloads of Government shipments westward toward the Pacific war theater has upset normal routine and most of the Mallets have to bring down trains, since westbound traffic is heavier than eastbound, the reverse of normal conditions.

Small engines cannot back up here. If they inadvertently make a move downhill

LEFT: Ready to drive the last spike on the Western Pacific at Milepost 280.51, near Keddie, on November 1, 1909. Section Boss Leonardo D. Tomasso swung the spike maul

RIGHT: Construction work was well advanced when this photo was made at Berry Creek. Preliminary surveys had been hazardous, involved lowering men and transits into the gorge with rope slings. Supplies were transported on burros, following an old trail from Spanish Peak.

Photos from D. O. McKellips

in error, or if the dispatcher maneuvers them into certain spots—it's just too bad, as I shall presently show. Even the Mallets frequently cannot back up their trains, for they have more tonnage than the engine will handle uphill, plus the fact that retainers are set up on the train.

If two trains moving downhill go to the same siding for another freight, or passenger train, they must be fixed up. At least, the leading train must go to the next siding against opposing trains; otherwise, the railroad is sewed up. If he can't back up for a "saw" and can't go ahead, then he's simply on the main stem blocking everything.

THE TRACK which hangs to the canyon sides like a great lazy snake stretched out to sun, is at varying heights above Feather River. This man-made ledge is so narrow at most points that a derailment results in cars taking a river bath far below. The remains of some can still be seen in the foaming waters. This mountain stream falls in such a torrent that a continuous roar is set up in the canyon, drowning out other sounds to the point where you cannot hear an approaching train.

There is no place I know of where good operators are needed so badly as in the Feather River Canyon, and few places where they are so hard to get and keep. Sooner or later most of them get what the boys call "cabin fever." There are no towns—just the houses in which they live, most of them batching. Since they are thus isolated from the world, except for their contact with trains and each other, it is not unusual for them to be affected strangely. The rhythms of Mother Nature are magnified in such localities.

One op described his reaction as claustrophobia. He had the feeling that the canyon walls were closing in on him and he simply had to get out for a while. Another told me of two fellows who would not even look at each other, much less speak, if they could help it. The first-trick man would make a transfer. Then he'd stand in a corner with his back to his relief, glancing surreptitiously over his shoulder to see when the transfer had been signed. One man, because of a minor disagreement, gathered up all his brother op's clothing in the dead of night and hid them in a snowbank. Another mental case shot a brakeman. And a chief dispatcher off the D&RGW told me of having two brass pounders at the same station in the Rockies go stark mad the same day.

Most of these boys will get drunk periodically to break the spell. Some walk off the job in a complete daze. A dispatcher never knows whether an op will do what he is told. The guy might fly off the handle and give him a good "cussing." But if they stay on the job and can take it, the lightning slingers of Feather River Canyon eventually become the best of train-order men.

Since the operators cannot see or hear a train approaching until it is right on them, the dispatcher has to work from his last "OS," hoping the said train has not been delayed. By the time he knows where the train is, it's too late to issue a clearance. This is indeed strange to the flatland DS who has been accustomed to putting out orders after the ops inform him a train is showing.

Here, the DS must call his men and have them keep trains cleared in advance of the time they may show; otherwise, they get stopped. For instance, at Belden, eastbound trains come through a tunnel about thirty car-lengths from the office, while westbound trains pop around a curve about the same distance away. If the op doesn't have his orders ready, he misses them.

NOW we get back to the impending head-on collision with which I opened this article. Second 78 had been called to leave Oroville yard and go to Oroville itself, a distance of two miles, for a troop train. The mainliner had to be iced and watered at Oroville, a procedure requiring twenty to thirty minutes.

When I went on duty at midnight, Second 78 had been cleared at Oroville yard with, among other orders, a meet with Extra 252 West at Berry Creek. I kept asking the brass pounder at Oroville if Second 78 was showing there, to which he replied in the negative. And the op at Oroville yard confirmed this fact, saying he could see the markers on Second 78 and would let me know the moment they left there.

When it was perfectly apparent that Second 78, not having moved, could not leave the yard for the "main," I issued a 31 order to Second 78 at Oroville and a 19 order to Extra 252 West at Berry Creek, changing the meet from Berry Creek to Bidwell.

Now the east switch at Berry Creek is just a few car-lengths east of the office and, as we often do under such circumstances to keep a train from going through the siding, I cleared Extra 252 West. Then I instructed the op, an old-timer by the name of Kemmerer, to take the "flimsy" up to the east switch and deliver it, keeping the extra on the main track.

ABOVE: The skipper gets his orders

BELOW: Just east of the canyon proper is Williams Loop, named for construction engineer J. T. Williams, who laid it out. By circling over itself, on a spiral measuring nine-tenths of a mile in circumference, the roadway adheres to a one-per cent gradient

As the selector slowly worked the Berry Creek combination, I had little hope of even getting in touch with Kemmerer, much less contacting him in time to stop the Extra, which was then overdue. If he had gone to the east switch, the river's roar would drown out the sound of the telephone bell, even if the train had not arrived; and he would wait there until the train came. It seemed that I was doomed to go through the torture most dreaded by dispatchers—sit and wait helplessly for two trains to hit.

No sooner had the bell quit ringing than I twisted the key a second time. If Jones, the operator at Oroville, had only mentioned to me that a train was there, or had OS'd it by; or if the man at Oroville yard hadn't been so sure he saw Second 78's markers, I might have uncovered the truth in time to avert the catastrophe.

Before the bell rang the second time, a gruff voice announced, "Berry Creek."

"Is Extra 252 West by there?" I asked.

It must be by, otherwise Kemmerer would be at the east switch waiting for them, for he had told me he was leaving to go there.

"No," Berry Creek replied, "but they're coming close and I've got to run."

Western Pacific Photo

"Hell, no! Wait a minute!"

I must have shouted, for fear he would snatch off the heat set and run.

"Are you there?" I went on, reaching for the selector key, just in case.

"Sure, I'm here," he said. "What's up?"

"Second 78 got by Oroville without that 31," I explained, with a sigh of relief. "Let Extra 252 West head in and copy one."

I annulled the superseding order, thus removing the hazard. Two factors conspired to ward off death and destruction: One, that Extra 252 West was delayed between Pulga and Berry Creek; the other, a pot of coffee. I've always suspected that no big road could run without Java, but I had not suggested the real power of the beverage.

Just as Kemmerer was leaving the office to go to the east switch, his pot of coffee, brewing on the stove, noisily boiled over; so he went back into the room and poured himself a cup. The phone rang just a second before Extra 252 West whistled for town. If it hadn't, he might have ignored the phone and made a dash for the switch to keep the train on the main track. That's whittling down your margin too fine

THERE was no investigation. I never knew exactly how Second 78 got by Oroville without the 31 order, nor what the op at Oroville yard saw which he mistook for Second 78's markers. One thing I do know—I lived a long time that night.

Even then I wasn't yet through with hair-raising experiences for that trick. An extra west, which was being handled by a Mallet, took siding at Belden on a meet order with an eastbound drag. Number 12, a string of varnished cars, was right on time, so the extra west did not have time to go to the next station, Camp Rodgers, for it. But no sooner was the east-bound train cleared than they started rolling.

Operator Holbrook was right on the job. "Does this extra west have anything on Number 12?" he asked.

"No," I replied. "Twelve's on time."

"He's leaving here," Holbrook told me.

I checked Number 12's time to be sure of my calculations. The train was due out of Camp Rodgers in one minute.

"Maybe he's just pulling down to the end of the siding, for some reason."

"No, sir!" Holbrook was emphatic. "He's leaving town."

"Stop him if you can!"

Holbrook grabbed a fusee, lighted it and dashed frantically from the office. But the head end didn't look back. It was only after the caboose had come around the curve that the conductor saw the fusee, pulled the air and stopped the train. The conductor, of course, thought the head end had received time on 12, and was on the step waiting for his orders and clearance when the caboose hove in sight, to find Holbrook giving washouts with a fusee.

The op then rushed back into the office, grabbed the Army phone, which was hooked up there, and rang the soldier who was guarding the tunnel west of Belden, telling him what had happened. The boy in khaki promptly took to his heels down the right-of-way and flagged Number 12. Thus a second catastrophe was averted.

But, as I have said before, our downhill tonnage can't be backed. There was much confusion and delay before the hoghead succeeded, with Twelve's help, in backing up that portion which he had pulled out on the main track; so as to be able to "saw" Number 12 out. Meanwhile, other minor troubles developed all over the railroad. The Mountain was on a rampage that night.

Operators can roughly be divided into two categories, sheep and goats. The old-timers, like Holbrook, are invariably on the job; but some of the boomers that hit this pike—and there seems to be an endless migration of them—are worth writing about.

It is permissible here, if an operator is able to take up clearance cards previously issued to a train and destroy them, to restrict the said train still further with a 31 order. All restricting orders, regardless of where issued, must be on 31 form, except where a middle order can be issued, in which case it is permissible to restrict a train on form 19. Presently I will show what this leads to, but first we get back to the clearance-card business.

One night at Quincy Junction, Number

62 was unexpectedly delayed in picking up cars for which a lot of switching had to be done. Upon learning that the train was behind schedule, I sent the op for the clearances. Later he told me that he had them. Accordingly, I issued an order giving 62 a meet with a train called out of Portola at Blairsden.

This was only a few nights after the foregoing and I was still a bit on edge. Therefore I kept inquiring of the boomer about 62. The op's reply was sarcastic.

"Hell, yes, I've got him. He's still switching. Hasn't come in to get his orders yet—he can't get out of town."

But I was uneasy. It didn't make sense that the train would be held up so long. On the other hand, there is nothing at Quincy Junction except the station; and the op certainly should know whether or not the train was still there, as there are only a few tracks. I calmed my fears and went to work at something else, deciding

ABOVE: But for a pot of coffee, two "Malleys" would have met head on, at this point in the canyon. Hydro-electric plant on the opposite slope has six turbines, developing 87,000 horsepower

BELOW: "Coming West Belden." Curve obscures a train until it's almost on the Op

BELOW: Number 11, the ***Feather River Express***, takes a drink at Berry Creek

to put the finishing touches to Number 62 when its conductor came in to sign up. He didn't come. The next thing I knew, the operator at Spring Garden broke in.

"Coming east, Spring Garden."

I rang Quincy Junction, asking about 62.

"They're still switching," he responded. "He can't get out of here—I have his orders."

"You must be hearing things."

"I am not. His headlight just flashed around the corner."

"Well, it's not 62," Quincy Junction broke in. "I tell you he's here."

Since an eastward train, just after passing Spring Garden station, enters a tunnel more than a mile in length, through which it has to work steam all the way, we try never to stop a tonnage train uphill at that point. The engine crew almost suffocate before they can get through the tunnel from a standing start. Firing valves must be kept open, and the gas from a Mallet climbing the grade is terrific when confined to a tunnel. But this was something different.

"Must be a ghost train," I kidded Spring Garden. "Hold your board on them and let's find out what a ghost train looks like."

It wasn't a ghost train. It was Number 62. The op at Quincy Junction, probably out of stupidity or laziness, had not complied with my instructions to take up the clearance cards. So I re-issued the orders to the train at Spring Garden, thankful that I had a telegraph office between Quincy Junction and the meeting point with the extra west.

As for the boomer at the Junction—well, he is gone, just like scores of other floaters who drift in, make a pay-day or two and are off, usually after messing up the works.

THE MANAGEMENT admits its inability to get good operators these days, and tells us to do the best we can with what we have to work with. They hire applicants with little regard to age.

etc., sometimes not even requiring a physical exam. Since a dispatcher's work can be—and often is—hampered by inefficient operators, maybe you think we don't rejoice when a good man bids in.

And now about 31 orders. I didn't know the system was still in use anywhere until I came to the WP. Every restricting order, except where a train is to be restricted at an open telegraph office and a middle order can be placed there, must be on a form 31, although there are a few loopholes in this rule.

Naturally, no dispatcher wants to stop a train he is trying to highball over the road, and when certain practices permit him to get around the 31 he is tempted to use them. Thus he may issue single orders, as well as follow certain other practices which I believe are hazardous.

IT'S NOT UNUSUAL to find a conductor calling the DS from a blind siding, for things happen so fast in the canyon that the smartest maneuvering won't always keep the varnished cars rolling

We will assume that a train is called at Portola, Extra 258 West, which we wish to meet Number 54 at Clio. A 31 order stopping 54 is in order—perhaps. Let's see. If we make the meet at Blairsden, an open telegraph office, it can be done on 19 orders, so we will issue the following:

Order No. 1

19 BA Opr
19 RT No. 54
19 KI Extra 258 West
No. 54 Eng 902 meet Extra 258 West at Blairsden

Order No. 2

31 KI Extra 258 West
19 BA No. 54
Extra 258 West meet No. 54 Eng 902 at Clio instead of Blairsden.

Thus we have restricted Number 54 at a blind siding without giving him a 31, the latter having been issued to Extra 258 West at a terminal where no delay will be caused by his signing. After the first order has been issued, Extra 258 West is superior to Number 54 at Clio by "right," so everything is in good form and comparatively safe.

But, suppose conditions were a bit changed. Suppose 54 left Oroville yard holding an order to meet Extra 258 West at Merlin, and later it looked as if the meet should be Cresta. Not wishing to delay a tonnage uphill train with a 31 order, let's juggle a bit more and see what can be done.

Photos, unless otherwise noted, are by the Author

TUNNEL near Virgilia is one of thirty-two between Oroville and Portola. They have an aggregate length of four miles

Order No. 3

19 BG Opr
19 BK No. 54
No. 54 Eng 902 meet Extra 258 West at Pulga instead of Merlin.

This order is not given to Extra 258 West. The two trains are now kept a couple of stations apart, one holding a Merlin meet, the other a Pulga meet. Let's hope the wires do not suddenly go out before we can correct this matter.

Order No. 4

19 BG No. 54
19 BN Extra 258 West
No. 54 Eng 902 meet Extra 258 West at Cresta
(BG add) instead of Pulga
(BN add) instead of Merlin

Again we have dodged the delaying order. Now, inasmuch as Number 54 cannot leave Pulga without the fourth order, if we have another 31 out down the line which we do not wish train 54 to sign, we simply transfer it into Order 4 and annul the original order to train Number 54.

Such juggling is safe only so long as the DS is thinking straight. The moment he becomes forgetful, a hazard arises. I could tell you of a recent case in which a dispatcher—a damned good one—hauled off and annulled the wrong order, and two extras smacked together. This man was about the worst order juggler I ever saw, but he really moved trains—until the unlucky day when he was sick, and slipped.

TAKE one more example. Number 40, the *Exposition Flyer,* is delayed unexpectedly at Oroville and, of course, every freight train on the road will get the same amount of delay, unless we do give them a "run late" order. Forty's schedule is so tight that if they are stopped, they will simply go in that much later. Still, twenty minutes delay to each of twelve or fourteen freight trains is too much; so let's see what can be done.

Order No. 5

19 BG Opr
19 BK No. 40
No. 40 Eng 326 meet Extra 22 West at Pulga

CLINGING to a man-made ledge, a string of empties clatters through the gorge

Now we have the *Exposition Flyer* hooked up so that they cannot pass Pulga without meeting a train (which for safety, should not even be on the road) or getting the order annulled. Again, let's hope the wires do not fail.

Order No. 6

19 BG No. 40

19 (Various) (All inferior trains)

No. 40 Eng 326 run Twenty 20 Mins late Pulga to Portola

(BG add) Order No.. 5 is annulled.

And so the famous train has been duly put on a "run late" without being stopped. But, in fact, we have defeated the safety features of the 31 order system. We are restricting trains on form 19 without the added precautions of the out-and-out 19 system,

Photo from D. O. McKallips

THIS LITTLE COMMUNITY, built at a point where the valley widens at a bar, bears the Spanish name Pulga, meaning "flea"

OPERATOR at Berry Creek gets ready to hoop up orders to the hack. Hobby-horse behind the order board adds a domestic touch to the scene

which forbids transferring part of one order to another and which demands that each train shall have exact copies of all "flimsies" instead of acting on orders under different numbers, the contents of which are not the same. In my opinion, Mother Nature provides enough hazard on The Mountain without exposing a crew to unnecessary danger such as depending too much on the whim of a train dispatcher for their safety.

And speaking of natural hazards, when the winter rains soften the canyon, down rush the rocks, slides, decomposed granite and what have you. Despite rock fences which hoist stop signals to all trains in the event of a slide, and track walkers who patrol the tracks, The Mountain gets in its dirty work. If, in addition to heavy rainfall, there is a high wind, Heaven only knows what may be brought down by uprooted trees. On such a night, when an op reports a train out of his station, the DS mentally kisses it good-bye. The said train may, or may not, show up at the next office; and not even a crystal ball could reveal how much time the crew may need to roll rocks off the track or chop up trees and remove them.

At one point decomposed granite washes down so fast that a ditcher has to be kept in continuous operation to prevent the main track, as well as the siding, from being buried. At another point an enormous, slow-working slide covered a siding for weeks, moving in inch by inch—but even that was faster than it could be removed.

On such occasions we all use extreme caution, and serious accidents seldom occur. Good-weather slides are the ones that wreak havoc. They sometimes come where there hasn't been a slide for years, or maybe never was one since the road was built.

These are the real hazards, for they possess the element of surprise.

I had not been long on my present job when a 200-ton rock fell on the track in front of a Mallet. Twenty-some-odd cars sailed down into Feather River as the train buckled in the middle, but nobody was injured.

TWICE within a week last spring, Engineer Stapp, a fast runner on whom the boys had tacked the name "Seabiscuit," hit small slides while pulling Number 12, the engine turning partially over each time; yet there were no casualties.

On the first occasion the old girl plowed clear through the rubble, was ditched and headed toward the river. Men were afraid to uncouple the cars from the engine until she had been snubbed down, lest she topple into the drink. The following day, after the situation had been cleared up, Number 12's cars were taken by another engine and continued their trip. But the delayed train had run less than fifteen miles when she again met trouble—a boulder bounded down the mountain, hitting the locomotive and tender and putting them out of commission. The hogger had seen the rock coming but was unable to stop in time to keep from getting hit. A work train engine was taken to complete the run.

Only a few weeks ago an immense slide fell in McLean Cut and a Mallet bumped into it. This was one of those good-weather slides at an unexpected point. "Val" Dycus was pulling the train. He had been making a swell run. In fact, I commented on it to Bill Wheeler, second-trick chief dispatcher. From that our conversation turned to The Mountain in general. Bill remarked that, everything considered, we'd had very little trouble of recent date. The words were scarcely uttered when something hit the wires.

"I hope," I told him jokingly, "that wasn't Dycus going into the ditch."

But it was. And the road was tied up for more than a week before the slide could be removed, the obstruction being some eighty feet high and hundreds of feet in length. One bank of the cut had to be gouged out to permit the bulldozers and other machines to get at the debris. Huge rocks had to be blown to bits before any machine could budge them.

The Mallet climbed the slide until her front end was seven or eight feet off the rails and pulling her down. This, in itself, was a considerable task. Two cars of hogs parked themselves on top of the articulated engine, but only two cars went into the river.

Dycus, his fireman and his head brakeman all got down in front of the boilerhead and rode the Mallet right into the slide; and no one was injured, except for minor scratches. The shack simply climbed out of the mess and right on up over the slide, heading down the main track to flag Number 12. Then he called me on the disabled phone, which was working feebly as far as the accident, and broke the news to me.

No, there is nothing monotonous about The Mountain. I'm amazed, though, at how those fellows can take it.

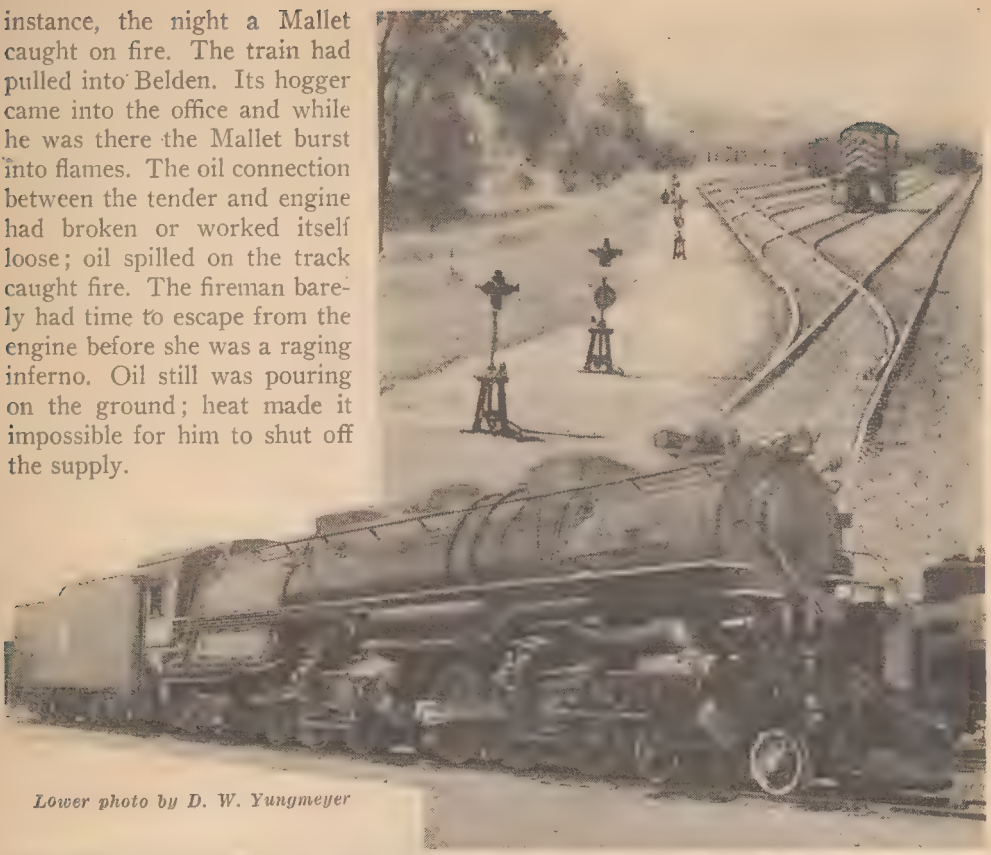
Freights coming down hill with retainers set up—which keep a constant pressure of brake-shoes—have wheels so hot that they glow at night, and sometimes break.

A conductor recently discovered a broken wheel in his train east of Virgilia. However, knowing what might occur if he pulled the air, he decided to take a chance on the car not derailing before it roared through a tunnel they were approaching. Can you imagine what went on in that fellow's mind as he waited before applying the air, wondering whether or not he'd live to see the light of day at the end of the tunnel?

Well, he did. Not only that, but he stopped the train between siding switches at Virgilia where, although derailed, it could be left until the wrecker arrived without causing more delay than was occasioned by trains having to use the siding at Virgilia as a main track.

There are many freak occurrences—for

instance, the night a Mallet caught on fire. The train had pulled into Belden. Its hogger came into the office and while he was there the Mallet burst into flames. The oil connection between the tender and engine had broken or worked itself loose; oil spilled on the track caught fire. The fireman barely had time to escape from the engine before she was a raging inferno. Oil still was pouring on the ground; heat made it impossible for him to shut off the supply.



Lower photo by D. W. Yungmeyer

OROVILLE YARD, where giant 2-8-8-2s and newer 4-6-6-4s begin their steady climb across the Sierra Nevadas

That night, being dubious of this particular train making scheduled time, I had hooped up a note to the conductor of an extra west that had a meet with it at Rich Bar, asking him to call me on the phone so I could advance him to Belden in the event the eastbound train did not appear. He called just about the time the op informed me of the fire, and it was feasible to have him leave his train in the siding at Rich Bar and dash over to Belden with his engine, putting out the fire with steam—but not before everything burnable was gone from the Mallet and much damage done.

He then put the uphill train in the siding and left the Mallet on a spur track pending such time as she could be examined by mechanical experts and arrangements made to take her to the shops. In the meantime, all trains had to be held back until the situation cleared; so the rest of the night was spent trying to untangle them and get traffic moving normally again.

ONE of the headaches a DS has on this district is that of keeping freights from heading passenger trains through sidings. It is customary for the eastbound, or uphill, trains to hold the main stem, regardless of their relative importance. If a dispatcher inadvertently orders a meet between two freights and the uphill train can't make siding for a passenger train, they will hold the main track, regardless of whether the train to be met is there or not.

Sidings, like the main track, are so crooked that there is not only the possibility, but a great probability, of a head-end collision if a train tries to take siding without authority to do so. This is diffi-

cult to imagine unless you have actually seen the railroad. Just the same, there are many places where two trains could get within fifty feet before seeing each other.

I recall one night, after a derailment, when trains were held up at each end of the district and turned loose when the track was clear. A new dispatcher, unfamiliar with the district, moved his trains in too close. By the time I came on at midnight and the passenger trains started from each end, I had a train in every siding from Bloomer to Belden, inclusive—except Camp Rodgers, which I managed to hold open to meet Numbers 39 and 40—and there were three trains between those points which had no siding to get into!

Well, it was necessary to move out the two westbound freights by giving them meets with the passenger trains, the eastbound running out of the jam unassisted. The other trains, some headed east, some west, were so interlocked that I couldn't get a single train rolling until the passenger trains ran—and it looked as if they were going to be a long time running.

Every siding being full, there was no place where I could put Number 12 for a meet with Number 39. "No room here," was all I heard from every siding in the vicinity of where they should meet. At length a conductor discovered and reported there was enough space on the house track at Pulga for 12 to get in—and that's where it went, to the tune of about fifty minutes delay.

Since I first tackled this job, a year or so ago, I have had ten times the dispatching experience as was my lot on flatland districts during the years I worked them. Maybe it sounds silly to Easterners, but here on The Mountain you sometimes sense Nature's moods prior to the time anything happens—a sort of premonition. Whenever this uneasiness overtakes me, no matter how closely I watch and try to forestall disruption, I never succeed. It goes completely to the bow-wows all at once, as if a deliberate attack had been planned by a master mind and executed in perfect co-ordination by his forces.

CANYON wrecks are tough to clean up. Hence the Oroville big hook—one of the largest Brown Hoists in the West

Railroad Jim

By JAMES DAUGHERTY

I HAVE always regarded 1878 as a very important year, and for two good reasons. First, the grade of the old Cincinnati Southern Railway, on which I was to spend many years as a brakeman, was at that time being driven steadily southward through the State of Kentucky. Secondly, that particular year marked my own somewhat stormy entrance into the world and, more specifically, to a little chestnut-shingle-covered log house on the Covington-Lexington Pike. Hardly a stone's-throw away, puffing construction engines were at that time shoving flatcar loads of rails ahead, while folks drove in from miles around to watch the unfamiliar sight.

My own arrival was celebrated in a different fashion. When I was two weeks old, my father—a hickory-stick school teacher—deserted us, eloping to Texas with an old-maid nurse. A case of this kind attracted considerable attention in a region as sparsely settled as ours and my mother became the object of still more gossip when two years later she was granted the first divorce ever to be issued in our county. Soon afterward she married again,

THERE are many "Railroad Jims," but few of them have the will or ability to recapture, in words, the flavor of their own lives.

James Daugherty has done it, here, in one of the most colorful true stories ever to appear in *Railroad Magazine*.

drawing a prize of six step-children. As though that wasn't enough, I picked this time to be taken ill with pneumonia. I grew steadily worse, and on the morning of April 1st, 1881, our old family doctor pronounced me dead. He placed nickels over my eyes, tied my mouth shut, and after spreading a cloth over my face, returned to Williamstown, Kentucky, to order the undertaker. The old doctor had eight miles of mud road to travel on horseback, and the undertaker faced the return journey with a two-horse wagon. Although we had no telephone then, the news soon spread from house to house that I had passed away.

There chanced to be a young physician in the village near us, but no one had any confidence in him. He was referred to as a quack. Perhaps this was because he was clean-shaven and wore a collar and tie. He happened by our place about two hours after the old doctor had left. He came in and removed the cloth from my tiny face and to his surprise discovered that I was yet alive. He asked for permission to take my case in hand, and soon had me on the road to recovery. Thus I fooled the old

NEW DESIGN for an engine whistle? No, it's the pipe organ of the old Cincinnati Music Hall; scene of a great banquet to commemorate completion of the Cincinnati Southern Railway

doctor and the undertaker on April Fool's Day, 1881. And I have fooled several more since then.

When I was about six years of age, my step-father moved to Cincinnati, Ohio. By this time my mother had two more children to care for, a total of eleven in all. Never a strong person, she now led a life of workhouse drudgery and her parents at last persuaded her to let me come out into the country and live with them, as they believed it would be better for us both.

JAMES DAUGHERTY, at the age of 21

But I was entirely out of place in my new surroundings. Except—that is—for one thing. My grandfather's house stood near the rails of the Cincinnati, New Orleans & Texas Pacific Railway—now a part of the Southern System. I dearly loved this railroad, or any other, for that matter. From my earliest memories I had been crazy about engines and cars and tracks. The feeling was unaccountable; yet as I grew, it became more and more consuming. Day or night, no train could pass without my seeing it, if I was awake. I would jump up from the table, while eating, and run into the yard to wave at the crew and watch the rocking cars go by. If I was in bed, I'd leap out, winter or summer, and stand at the window with my fists clenched and a queer tug at my throat.

The shining headlight fingering the rails ahead and the green and red lights on the rear were more beautiful and fascinating to me than the great flower market of Mexico City, which I chanced to see, years later. The keen exhaust from the engine stack; the scream of the whistle; the clickety-clack of car wheels taking the joints—those sounds were music to my ear.

Everytime the fast night express flashed the yellow rays of her oil lamp against the old depot, or some monster of the rails blew a station signal in front of my Kentucky home, or a big-hearted engineer or conductor, fireman or brakeman waved a hand at me, I became more certain that the pattern of my life was interwoven with that of the iron trail.

MY GRANDPARENTS were kind, but they could no more grasp my love for the railroad than I could understand their plans for my future. My grandfather was a very fine blacksmith, and naturally he thought I should be one too. My grandmother, on the other hand, was convinced that I had the makings of a store clerk. She argued that I was small and delicate and would never be strong enough for anything else.

But I didn't want to be a blacksmith, nor could I see standing behind a counter, wrapping up fancy bundles for someone to carry home. They were only wasting their time trying to prepare for me some other occupation. My whole heart and mind was firmly set on becoming a fireman or a brakeman.

I attended school at the little county seat where my mother had received her curiosity divorce. To reach it I was instructed to walk the old Covington and Lexington Pike which paralleled the railroad. This I would do until I was out of sight of our home. Then I'd cross over to the tracks. It was really better walking on the wagon-road, but I was as hard-headed as a young mule, and since I was too young to work on the CNO&TP, I was determined at least to walk upon it. When a train pulled out in my direction, I would hop on it and ride as far as I thought it safe to go. I got many thrills from being the last boy to hop off without falling. I had a little advantage, here. Two of my uncles had worked on that division as brakemen, and since many trainmen knew this, I was saved an occasional spanking.

I had been named in honor of one of these uncles, at a time when he was a freight conductor, working out of Winslow, Arizona, on the old Atlantic & Pacific Railway, now the Coast Lines of the

Santa Fe. Later, this uncle came home on a visit. He was a handsome man who wore good clothes, and had a real roll of bills. One of the first things he did was to take me to town and dress me out completely from stockings to overcoat. This was the first real outfit I had ever had, and I was mighty proud of it. But that was nothing to the joy I felt when he gave me his old watch, which he had just replaced with a B. W. Raymond stem-winder. Mine was a key-winder, but that didn't matter in the least. I had clothes purchased with railroad coin by an uncle who was a conductor, and a watch that, passing the required examination, had really been used to run trains.

While this namesake uncle was home, his railroading brother breezed in, too, and as they exchanged experiences, I listened to every word. During their stay I managed in some way to get a Book of Rules from one of them. I can't remember how it came into my possession. I might have stolen it, for certainly I would not have trusted myself after seeing its contents. At any rate, I had it and was able to read and understand it. In a short while I knew most of the train rules by heart, and I would answer to myself every signal I heard an engine blow. I cherished that little volume as a minister would his Bible. What more could I want?

JUST BEFORE CHRISTMAS, 1889, I was allowed to spend the holidays with my mother. I was completely happy. Her youngest brother took me down to Cincinnati, and while I enjoyed the train ride, it was nothing new to me. Nor did I care especially about the decorations. It was the thought of being with my mother again that made Christmas all that I could wish for.

When the holidays were over and it was time for me to return to my Kentucky home, I refused to go. My uncle tried to take me by force, but I fought him like a wild animal. I couldn't bear the thought of leaving my mother, and I would have jumped into the Ohio River first. I was old enough to see that she was being worked to death, and I also realized that my staying could only make things harder for her, but even that seemed to draw me closer. She understood, and simply told me that the choice was mine to make.

I know now why I could not leave her. Less than two months later she was taken sick. Her case was diagnosed as pneumonia. She grew gradually worse, and on February 14th, 1890, she passed into the Great Beyond. This was a sad Valentine's Day for me. For even though I was only a little boy of not quite eleven, I fully realized that I had lost my best friend in this world. There was an unspeakable loneliness within me at her funeral. It had been raining steadily all night and the picture of two gaunt men in high boots dipping water out of her grave is one that I could never forget.

When my grandparents took me back to Kentucky, I was glad to go. About three years later my grandfather sold his farm and bought another one about two miles from the railroad. This put me in a different school district, where I could see the trains only at a distance. But the change did not affect my attitude toward learning. I still failed to understand why I needed an education to shovel coal into a firebox, or to set brakes, throw switches, or give signals.

This little one-room school backed up against a forest of large timber. I drew a seat right across from a little red-haired girl. With her blue eyes and long copper-colored braids, she was as pretty as a picture. It was not long before she caught me looking at her, and I could tell she didn't mind. We understood each other from the start. Why shouldn't we? For she was an orphan, like myself.

We had plenty of fruit on our farm, and it wasn't long until I was bringing her an apple every day. And she would divide her cookies with me. We soon regarded each other as confidential friends. In fact I felt nearer to this quiet little person than to anyone I had met since the death of my mother. I told her that someday I was going to be a real railroad man, just like my uncle who had given me the watch. She

agreed that it would be a fine thing—much better than farming or lumbering. Her father had been killed by a falling tree.

So now I had found someone besides my mother and my two uncles who didn't laugh at me when I talked of railroading. How could I keep from loving her?

ALL THIS TIME I kept up correspondence with my namesake uncle, out West. He wrote interesting letters, which I carried about with me and reread until they were worn out. One of them, written in the summer of 1894, told about the Pullman strike. At that time he had just walked out on his conductor's assignment at Winslow, Arizona. When the dispute was settled, he found himself hounded from job to job. Finally, in the fall of 1897 he went to braking on the Southern Pacific between Los Angeles and Bakersfield, over Tehachapi Mountain and the famous Tehachapi Loop.

After he had been there several months he began to think the crane with the broken neck would not catch up with him again. He wrote me in the spring of 1898 and said if I could get to Los Angeles he'd land me on the same job, as an extra brakeman. He added, which was true, that I would be able to make more money in one month, there, than I could on a farm in Kentucky in a year.

I took quick inventory. I had only a few dollars, maybe twenty at the most, and the train fare was sixty-five. My small fortune had been earned working from daylight until dark on farms at fifty cents a day. Determined to go at any risk, I did not have the patience to wait long enough to accumulate the balance. Within a short time, then, I shipped a grip of the best clothes I had to River Station, Los Angeles, and on the second of May, 1898, I started. Leaving Williamstown, I boarded the southbound local passenger train for Lexington, Kentucky.

My heart was pounding as the familiar

This blade lasts long and serves you well—
Gives slicker shaves than I can tell!
Just try the keen-edged Thin Gillette,
It saves real dough and time—you bet!
Rigid inspection assures absolute uniformity
NO LOOSE TALK!
Gillette
BLADES
4 for 10¢
Produced By The Maker Of The Famous Gillette Blue Blade

landscape fell away. I had left the impression behind me that I would buy another ticket at Lexington, straight through to Los Angeles via New Orleans. Actually, however, I was well aware that I would have to give up the plush cushions for boxcars and rough riding. All I knew about hoboing was that it had been done by other boys, and that gave me the courage to try.

I traveled over my home road to Chattanooga, Tennessee, then by the Memphis & Charleston to its first named terminal, on the Mississippi River. From there, the Cotton Belt took me to Fort Worth, Texas, via Pine Bluff, Arkansas, and Texarkana. Nothing of importance happened during this part of the trip, except I was put off more than a few times, or "ditched" as hoboes call it. All the way through Tennessee, Mississippi, Alabama, and Arkansas the scent of the magnolia blooms was so dense that it nearly made me sick. The mosquitoes were plenteous, too, and their favorite meal seemed to be bindle stiffs.

The spring of 1898 was very wet, and the Mississippi River had gone on one of its rampages. Breaking the river levee on the Arkansas side above Memphis, floodwaters had submerged eastern Arkansas. As I've already mentioned, I caught a Cotton Belt passenger train out of town and held it into Fair Oaks, about eighty-five miles. It took more than eight hours to make that journey, thanks to the inundated country and soft track. At almost no point did we travel faster than a horse could gallop. I have never quite understood how I held this job down so long in daylight, unless the crew was so interested in the safety of the train that they didn't have time for one runty little hobo.

I rode everything that I could hop that was headed West. Both passenger and freight; on top, on the rods, between the cars, on engines, cabooses and in one first-class coach. This was all tough going. Not too much to eat, and the only sleep I ever got was on the decks of bumping cars, or around water tanks, with old mother earth for a bed. But what did I care. I was on my way to California to meet my uncle, and was going to land the job I had always wanted.

AT FORT WORTH, I took the Texas & Pacific, and here is where my troubles really started. Until now I had been traveling through more or less settled country. But from there on lay miles and miles of open space, inhabited by long-horned range cattle, coyotes, prairie-dogs, rattlesnakes, cowboys and outlaws, all of which I had not chanced to meet until now.

My first dash out of Ft. Worth was on a merchandise run. By doing some good running and hiding I was able to ride her into Baird, Texas, about 140 miles. More important than evading trainmen was the problem of keeping clear of county officers, who received two dollars for the arrest of every hobo. The hobo, in turn, got a term on some job without pay. I caught a cattle train of young stock out of Baird, shipping from Louisiana to Sweet Water, Texas, for summer pasture. The brakeman soon learned that I was aboard and started to ditch me. I watched his lantern and climbed into the end window of the car I was riding. It was not a pleasant or safe place, standing among those steers, but I stayed with them into Sweet Water, where the train was unloaded and the empties set out on a siding to be returned East.

The crew picked up three loaded boxcars and continued west. I started with them but didn't get very far before I was spotted again and put off. It was about midnight and the moon was very bright. When the markers of the train winked out, I discovered I was at the eastern end of a long wooden bridge spanning what looked to be a dry river bed. After taking an invoice of my courage I decided to tramp back to Sweet Water, as I had no idea how far west I would have to walk before reaching a station where the trains stopped.

I hadn't gone very far when I saw a huge cloud of dust approaching from the

south. I could also hear the bawling of many cattle. Several stock trains had been unloaded at Sweet Water ahead of the one I was on, and the noise they set up had attracted and stampeded a large herd of native longhorns. Now they were headed my way. I had already learned enough about Texas cattle stampedes to make my heart crawl into my mouth. I beat a rapid retreat to the bridge I had quit shortly before. Soon after I was safely out on it, this herd passed over the railroad headed north, making a noise the like of which I had never heard. I remained on my timber perch until after daylight, though twice I had to give up my safety seat to let trains pass. Some time after the first herd thundered by, another went south beneath the trestle. All I could see was a cloud of dust, halated with moonlight, and punched through with the trample of many hoofs. A little while later still a third herd went north, a mile or so west of my bridge. I never determined whether these were separate stampedes, or a single one that passed me three times. If the latter was the case they were certainly long-winded animals.

After daylight, when everything had calmed down, I started for Sweet Water. What I found there, I will never forget. The little town was nearly wrecked. Dead and injured range cattle were everywhere. Small out buildings were a shambles, and carcasses and crippled longhorns lay wedged together against the empties that had been set out at midnight. A little lunch house had two injured steers inside. One had jumped through the window; the other came by way of the door, without unlocking it. Everything that was strong enough to resist the pressure of the stampede had dead or injured steers piled high around it. An old Texas ranger told me that it was the worst mess he had ever seen.

I CAUGHT a passenger train out of Sweet Water about dark, and held it down to Big Springs, by riding the blind baggage. Before arriving there, I could look far ahead and see great prongs of lightning. Big Springs was a terminal and we changed engines. I caught the same job out, and within a few miles the expected storm broke. As I was riding the blind baggage I had to crawl over against the engine tank for partial shelter against the rain, By the darting electrical flashes I had momentary glimpses of ugly level country, completely bare of homes or ranches. Then, during the very worst of the storm, we slowed down and stopped at a station. This consisted of a side track for meeting or passing trains, but there was no building. The crew had discovered I was riding the blind, and the colored porter dragged me off. But I didn't intend to be left out there in such a storm. So, as soon as the train pulled out, I boarded the smoker and took a seat inside.

The conductor soon asked for my ticket, then for the cash fare, which I told him I did not have. He talked pretty rough at first, and said I had plenty of nerve to board a train without ticket or money. I told him it took more nerve not to do it on such a night, and in such wild country. I think this touched his big heart, as I was quite wet and my face was dirty from exposure to the weather and coal dust. He sat down beside me, and I proceeded to tell him all about myself and my uncle. He listened with interest, and when I was through, said he'd take me as far as Monahans, the next station where I could get food and shelter.

It was still raining when we arrived, but the worst of the storm was over. The conductor asked the night operator to allow me to sleep in the office until I could catch a freight. He gave me a long caboose cushion for a bed, and the information that the first westbound train scheduled to stop there was a merchandise run, due around 3:30 p. m. When it pulled in, I saw that all of the cars were loaded and sealed—a hard one to ride during daylight hours. To add to that, the rear brakeman spotted me as soon as they stopped, and warned me to stay off. He had a large brake club, and spoke very plain English.

The operator had told me that this train would be my only chance until after mid-

night. I sized up the situation at once, and when the caboose came clipping along, I swung aboard as easily as any brakeman. Once more I found myself facing an angry conductor. But when I told him my story he thawed a bit, too. Said he was a New Yorker by birth, but a Kentuckian at heart. It seemed that he had returned from that state two months before, bringing a Kentucky bride with him. His enthusiasm for the hospitality accorded him surely helped one native son. For he took me over the rest of the division, to Toyah. He was so kind that I almost felt that I had met my uncle. This was a hot-shot run, he said, through to El Paso.

While crews and cabooses and engines were being changed at Toyah, my new friend took me over to the outbound locomotive, introduced me to the crew, and after a few words spoken in a low tone, told me he had fixed things up for me to go on through. He then bade me goodbye and good luck.

That portion of the run just ahead would put us over the Sierra Blanca pass, a long tough climb. The grade was so heavy that firemen were allowed to use hoboes as coal passers. So this was to be my job, and I was able and willing to do it. I had found no time to eat at Toyah, though I was quite hungry. I climbed into the engine cab as she began to snort and throw great clouds of smoke into the clear Texas sky. The fireman told me to sit down on his seatbox until such time as his coal began to run low. Then I could exhibit my Irish skill with his extra shovel, passing the real estate forward from the rear of the bunker. Both he and the engineer were big, good-looking men, and their hearts were as large, in proportion.

I was so completely charmed over being on a real engine, whipping a merchandise train across the wilds of Texas, that I soon forgot all about my hunger pains. I didn't let a move escape my eye. The crew noticed quickly that I was right up on the rules and signals, and took an interest in me. We arrived at Sierra Blanca about two o'clock in the morning and the whole crew ate. They might have done so as a custom, but not so, I. Seated facing a large mirror, I hardly knew myself, I was so black with coal dust.

The run from Sierra Blanca to El Paso seemed to be all downgrade, and we appeared to touch only the high spots. We arrived at the terminal about daylight, and I was sorry the trip was ended.

The crew took me with them to the wash room in the roundhouse, and I gave myself the first really good cleaning up I had had since I left home. Then we all went to a Chinese restaurant where we feasted on ham, eggs, and hot cakes, a railroad standard. They would not allow me to pay for either meal; told me I was jumping into awful country west of El Paso, and had better save my money. They gave me some pointers on getting out of town on the Southern Pacific, and wished me the best of luck.

TRUE TO PROPHECY, I found that I was just entering upon the very worst part of my journey. Between El Paso and Los Angeles stretched out eight hundred and fifteen miles of which seven hundred were the most dreaded and dangerous desert terrain in the United States.

Hopping an Espee merchandiser around midnight, I hid out in one of the ice bunkers of a car of bananas. As soon as I dropped down into the darkness I discovered that I was not alone. I struck a match to find out who my fellow tourist was, and saw a pleasant enough face, though its expression was as uneasy as my own. It belonged to a young man from Missouri, bound for Los Angeles. He was about my age but much larger, and didn't know any more than I, so we made a good pair.

We held this car to Lordsburg, New Mexico, where we were ditched. However, we contrived to catch another part of the train and reached Steins Pass, New Mexico, shortly after sunrise. There we were thrown off for a second time. This was hard luck as the next westbound train would not be due until nine in the evening. Although we did not know it, this flyer

had been held up and robbed at Steins Pass twice since January first. It was a good spot for that kind of venture; a very small place, located high in the mountains,

HAD I KNOWN the distance to the ground, I wouldn't have tried it

sparsely settled, and reasonably close to the Mexican border. Another thing we didn't suspect was that the Wells Fargo Company had now placed special guards on all passenger trains running between El Paso and Tucson, Arizona.

After passing a very lonely day, our long looked for express train arrived. We had hidden out just west of the depot, behind a bunch of cactus, all ready to grab the blind baggage as it passed. The moon was shining bright. As the engine snorted by we jumped out and made a dash for the train.

At that moment a voice from the express car shouted, "Halt."

Simultaneously, a large caliber gun spit blue fire. There was a loud report and my Missouri friend rolled over in the dirt. Before I could stop I had tripped over him and fallen, too. Together we regained our feet and ran back into the cactus like scared antelopes. When we had stopped for breath my companion said that he'd been shot, but didn't know where. I struck a match and found a wound in his arm. It was bleeding freely, and his shirt was already soaked. I suggested that we return to the depot and see if we could get medical aid.

I led the way back. I opened the rear door and stepped into the office, my friend right behind me. The night operator was seated at the telegraph table, reporting the train out. He turned as he heard us enter, pointing a revolver at me, with the command to hoist our hands. This I did cheerfully, and it didn't take long for him to grasp the situation. Getting the Missouri boy to a chair, he washed the wound and put his last chaw of tobacco on it. That was the nearest thing to medicine the operator had. While he was binding up the injury, he told us about the train robberies. Said his office had been cleaned out, too, and that he had an order from the Wells Fargo Express Company to shoot to kill anyone entering, or trying to enter, the station after dark.

"I always keep my doors locked," he concluded, "but I guess I must have overlooked it this time."

I asked the op to call the Superintendent and see whether my friend could be sent to the hospital at Tucson. The Super wired back to the effect that if the injured man had the train fare to San Simon, he would give the company doctor there an order to treat him until he was able to resume his journey. San Simon was on or very near the New Mexico-Arizona line.

A westbound train of empties clanked in around midnight and picked up my Missouri friend. I caught the same drag and hid out in an empty car. I hated to part company with this young fellow, for he seemed to be true-blue, and that kind are mighty scarce at best. I held the freight as far as Wilcox, Arizona, and another from there on into Tucson. Two more

hops found me at Yuma, on the eastern side of the Colorado River.

I FIRMLY BELIEVE that Yuma is the hottest town in the United States. I arrived there at high noon when the thin air trembles like molten glass. I was too tired to go on without rest, but at the end of a dozen hours, anything looked better than a prolonged stay there. I got out at one o'clock on the morning of May 22nd, and unless I lose my mind, I shall never forget that particular day.

Leaving the Colorado, we climbed a hill, and our engine seemed to have her tonnage and then some. Drivers slipped and caught in a succession of jerks that finally gutted a drawhead a couple of cars behind me. Then all was still except for the pounding of my heart. The moon was shining and I could see that the car I was in had stopped on a small wooden bridge.

I remained very still until I heard the conductor and brakeman working along the train, behind me. The brakeman said there was a damned hobo ahead and that he was going to ditch him. When the rays of his lantern came up on one side, I climbed down the other, and jumped off the bridge. Had I known the actual distance to the dry-bed below, I certainly would not have tried it. I must have dropped all of twenty feet, to judge from the shock of my landing.

As soon as I discovered that I wasn't hurt, I ran up to the west end of the structure and hid under it. This put me close to the engine. It pulled out, shortly, with the head end of the train. I saw the brakeman decorating the top, so I jumped on the rods of the first car I could catch. Climbing under a moving train in the dark is not a pleasant task. And riding the rods at high speed is much worse. It wasn't too bad until we tipped over the summit. Then it turned out that we had several miles to go over the level road before the head end was set out on a siding, and the engine returned for the rest of the train.

The real torture came when, after doubling the hill, we struck out over the desert. Flying sand, dust, and gravel lashed me as I clung, face downward, to my open perch. When we finally stopped, I was nearly suffocated, and how I longed for a good drink of water! Yet I dared not go to the engine or caboose lest I be ditched. I might have saved myself the worry, for the brakeman had spotted me at last. While we were holding siding for an eastbound train he put me off.

The sun was just beginning to peep over the rim of the desert, and before the train was out of sight, I saw that I was not alone. Another hobo had been ditched; a big fellow who might have been several years older than I. I didn't like his looks and cared still less for the way he was storming around, cursing trainmen with every vile name that came to mind. This didn't set well with me, for already I had met many big hearted railroaders. Besides, I had two railroading uncles, and I was going to be one, too. However, misery loves company and after our train had disappeared into miles of cactus and mesquite bushes, we started walking in the same direction, not knowing how far we would have to go before we reached water. My new acquaintance enlivened the miles by damning every state in the Union except California, which it appeared, he had left in search of adventure. Now, he was playing the part of the prodigal son, returning to San Bernardino.

For my own part, what little I had seen of California so far had been wretched. We were nearing what was known as the Salton Sink. With miles of it situated below sea level, it ranks only second to Death Valley as a dreaded locality for the foot traveler.

About ten in the morning, we reached a little red boxcar telegraph office, blocked up on old discarded railroad ties, and equipped with an order board. On a sand-pitted sign was lettered the name *Mesquite,* an appropriate title, for the station was nestled down in an ocean of the stuff. There was nothing else in sight except the shining rails, and sunshine, and sand. Inside the depot we found two young op-

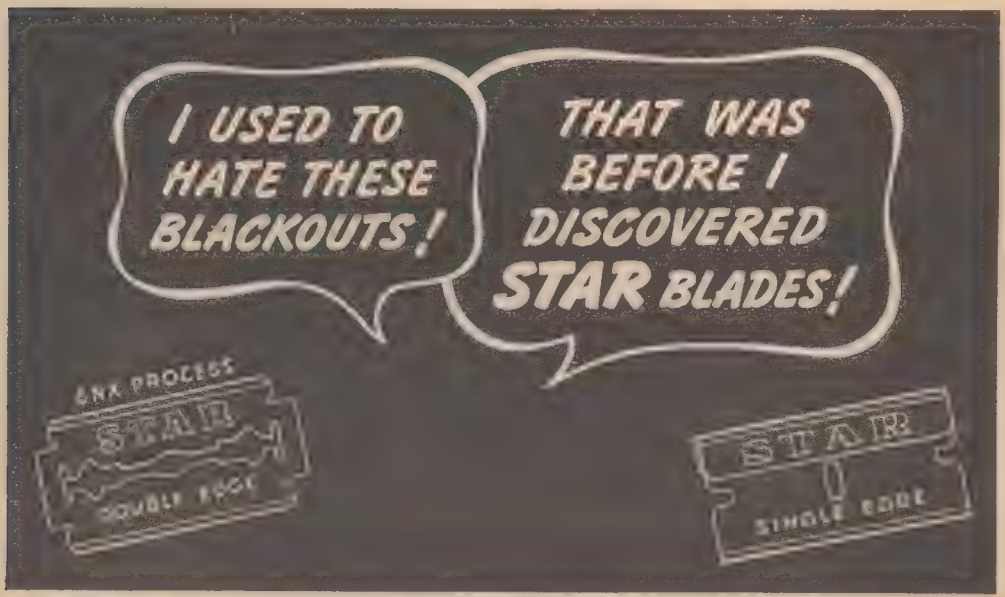
erators who constituted the entire population of the place. They were as glad to see us as we were to find them there. First off, they gave us all the water we could drink. Then they broke the saddest news I'd heard since leaving home, telling us that it was seventeen miles to the next place where we could catch a train or get a drink.

Mesquite, it seemed, was only an O.S. station for reporting trains by. Little traffic ever stopped there, except the local freight which dropped off groceries every week and replenished their water barrels. When we left, an hour before noon, they gave us four quart bottles—all they had—filled with the precious liquid. It was now 105 degrees in the shade—and no shade. We continued due west, with a sand storm beating directly at us; its millions of tiny particles cutting like glass.

WE STARTED to sip from our bottles before we were out of sight of the boxcar, which was wrong. If we had carried a gallon each it would have been a very small amount for the ordeal ahead. By the time we had covered one third of the distance, our water was gone, except for perhaps a gill in one of my bottles. I had a Southern Pacific railroad map and I took half of it and made a round paper wad. This I soaked and put in my mouth, to keep my tongue moist. It might have done some good, had it been clear white paper. But the blue and red print began to run and make me sick. I had to dispose of what I considered my last resort.

We had been talking some as we leaned against this sand storm—another mistake, for we should have kept our mouths closed. The soles of my feet burned from the intense heat of the ties and sand, and my tongue was beginning to hurt. I had heard enough about the desert to know that we were in bad shape. Quite often I had to urge my big partner to come on.

About the middle of the afternoon, the track began to dance before my eyes. Soon my mind flashed back to my Kentucky home. I could see before me every cool spring I had ever drunk from, with the little willow twigs dipping down into the water. There was an old cedar bucket, bound with bright brass hoops and a clean gourd hanging on a wall nearby. I could see the little creek that wound across our farm, where the stock walked in and drank at will. Then there was the old hog pond, muddy but cool. Oh, how I wished for a drink from even that wallow! Anything would beat dying here on this dreary,



desolate, blistering desert in California.

While I was in my wide-awake nightmare, I thought I spied the smoke of an eastbound train. Ten minutes later I was certain of it. Here was the first sign of life we had seen since leaving Mesquite. I knew that the approaching engine held my destiny. She had water and some to spare. For my part, I had one life, but it was slowly and painfully ebbing away. I must do what I could to save it.

I had a handkerchief that had once been white, but was now discolored with dust. I had it all doped out in an instant. When the train arrived at the proper distance I started waving my "flag" diagonally across the track. At once the engineer shut off steam and answered me with two short blasts of his whistle. I stepped off the track on his side, just as a flagman should. The locomotive stopped with the cab right above me. The hogger leaned out and asked what was the trouble, but I am quite sure he understood it all. I said: "Water," as loud and clearly as my swollen tongue would permit. He dropped a three-quarter-inch hose and alkali water began to run. It seemed to me like a fountain of life flowing from Heaven. I grabbed the hose and drank as long as I could hold my breath. Then I handed it to my big partner who had come stumbling around the side of the engine, and he had his fill. After that we got our four quarts for the bottles and tried to express our gratitude. The kindly fellow at the throttle strongly advised us to turn back, offering a ride as far as Yuma. But I thanked him again and said we were not of the turning back type. He shook his head and as the engine began to move, he shouted back at us: "The Salton Sink is a graveyard. Good-bye, boys."

The conductor, too, had sized up the situation. When the rear-end passed, he swung far out and handed me a jug of pure icewater. Words cannot express what this meant to us. As soon as we had downed it, I jumped my California partner and asked him what he thought of the heartless railroad men he had been cursing only a few hours before. He owned that some of them were all right, he guessed, and we continued on our way.

THAT SOUTHERN PACIFIC ENGINEER had been wise. No doubt he, too, carried icewater in his cab. But he had made us fill up on the luke-warm boiler supply, knowing full well that anything cold would have killed us. As it was, we had walked only about half a mile when my partner declared he was sick and would have to stop and rest. I sat down on the end of a tie facing north, but soon was forced to turn away from the cutting sand. I put my coat over my head and waited. The California boy lay back against a sand bank behind me, and did not move. In a short time I called to him but got no answer. I shook him by the foot, and then I climbed up the bank where I could see his face. It was enough to give an undertaker the creeps. Sallow and distorted, with mouth open and eyes shut. I made myself touch his forehead. Stone cold! I said to myself: "He's dead."

Fear and excitement filled me; but above all, a sense of intolerable loneliness. Here I was out on a vast expanse of desert, with the sun going down and a tireless wind roaring through the cactus and mesquite. I was hungry and exhausted, and far from any human abode. And now my companion—

I'll never know why I did it, but I grabbed him by the feet and dragged him down the bank. This seemed to jar him back to consciousness, but not to reason. For some time he could not remember how we had gotten water, or who gave it to us. And he was completely turned around. He insisted upon starting east, arguing that was our direction. I tried to reason with him, pointing out the reflection of the setting sun on the sky. When I saw it was useless I told him he could take any course he wished, but that I was heading west. With a curt "Good-bye," I started off.

The sun that had been blistering me all day was gone, but walking became harder in the darkness. After I had tramped a mile or so, I heard a croaking voice behind me. I knew, in reason, that it must be my

partner. I was right. We were glad to be together again, and he said he guessed he had acted kind of crazy.

As we stumbled along, I wondered how anyone could learn to love such a country. Yet in later years I was to understand. About nine o'clock we reached the station of Mammoth Tank. All I remember seeing was a little depot, and a red order-board that loomed out like a sentinel in the night. Then there was a side track for meeting or passing trains, and a little cluster of adobe huts where the Mexican track laborers lived. From its name, one would naturally judge that this was a watering station, but such was not the case. For all engines in this territory carried a tank car as an auxiliary water tender.

Needless to say we wanted shelter and food. We dropped down to the ground at the east side of the depot; first, to get a little rest, and second, to evade that beating sand. Several Mexicans had gathered in the doorway of one of the adobe homes across the track. For awhile they played strange music, and then, all at once, they started off on an old tune that nearly broke my heart. It was *Home, Sweet Home*. When they were through I looked at my partner and he at me. I know we were equally touched.

I still had a few dimes in my pocket, and that was well, for the California boy was destitute. He said he spoke Spanish, and that if I would give him a dime or two he would try to get something to eat from these Mexicans. I gave him a quarter and he was soon back with a large bowl of beans, two spoons, and several pieces of Mexican bread called *tortillas*. These last were like large pancakes but very tough.

We went around in front of the telegraph office to eat, where the light would shine out on our food. This put us in the path of the storm, and our beans were soon full of sand. But we didn't mind that, and could have downed twice as many, though I can't say as much for the bread.

After we had eaten we returned to our resting place to await the arrival of the next westbound train. My partner was exhausted, and dozed off within a few minutes. But I was not at all sleepy. I had too many things to think about.

FROM across the way came the strains of "Home, Sweet Home"

Ahead lay two hundred blistering hot miles, as bad or worse than the country we had just traveled. My mind jumped, then, to the little red-haired girl in Kentucky. Perhaps at that very moment she was thinking of me. In spite of my best efforts, tears streamed down my cheeks to mix with the desert sand.

WHILE I was musing, I heard the rumble and faint whistle of the westbound train. In a few minutes she was

calling for the order board. I stepped out where I could see the signal. It showed red. I clutched my hands and prayed that it would stay that way. The whistle called again. Still the blade remained motionless. The train passed at a rapid clip with fire streaming from the shoes. Before I could get the native-son awake, she stood panting at the station.

Her train was made up of empty reefers, and I knew they were headed for the California fruit belt for reloading. We located a car with a dry ice-box, and climbed in.

Fortunately it proved to be a smooth rider. My partner was asleep again almost before we started, and the clickety-click of the wheels over the rail joints had its soothing effect upon me, too. For with every rail length I knew we were putting more of that dreary, treacherous Salton Sink behind us. I dozed off often during the night, awaking as my joints protested against their cramped position. Once I heard car inspectors tapping the wheels and opening and closing the lids of the journal boxes. I knew by this that we had reached Indio. I shook my partner and made him stay awake until we had cleared the yard, for he was snoring so loudly I feared we would be heard and ditched.

We figured that our next stop would be Colton. This division point, I had heard, was located right in the fruit belt. We rumbled along, and between dozing and waking in the dark interior of the ice box, I lost all track of time. A rude jolt finally brought me completely to my senses. Now we were standing still, with only the song of a mocking bird to break the silence. I knew by this that we were in civilization again.

Directly the side doors squealed open, and I could hear two car cleaners sweeping the floor. I pounded on the ice-box wall and asked what town we were in. The answer was Colton, California. Tramps were no novelty to these men. They took us matter-of-factly and were good enough to tell us that the coast was clear—no railroad bulls in sight. So we pushed the ventilator hood back, and climbed out onto the roof of the car that had been our refuge for so many hard miles.

I can't describe the feeling that came over me when I looked at the surrounding landscape. In one night's time we had been transported from the very hardest country in the Southwest to the most beautiful place I had ever seen. The sun was shining brightly on a vast valley of green and fragrant fields. Snow-capped mountains formed a massive background for this pleasant setting. And in the immediate foreground lay block after block of well-kept homes. Clean streets and walks, grassy lawns, and flowers I had never dreamed of.

I stood on that car like one turned to stone. In that moment the thought struck me that if heaven could be reached by rail-

Photo by Jim Watson, from Sgt. Bob White, U.S. Army

ONE HUNDRED AND FIFTY-SIX MILES east of Los Angeles this sign marks the lowest point on any main line in the United States—Salton Sink trackage of the Southern Pacific. When the Colorado River broke into this basin five years after Railroad Jim's journey, the Espee spent nearly $3,000,000 diverting its course

road train, I must be there. My partner had already dropped to the ground. This was no novel sight for him: he had been born and reared there.

South of the railroad yards we crossed an irrigation ditch filled to the brim with clear, smooth-flowing water. This was what we had been dying for yesterday! We lay down and drank all we could hold; then we walked a short distance to a packing plant where I bought a dime's worth of cull oranges, sixteen of the largest ones I had ever seen. We were starved for something of this juicy nature and we ate every one. When we had finished, the California boy called my attention to a narrow-gage railroad running north out of town.

"My home is right out there about three miles," he said, and then wishing me good-bye, he walked away. That was my last glimpse of the native son.

It's about sixty miles from Colton to Los Angeles. I caught a passenger train around noon and held it right down to the Angel City. My departure from Kentucky seemed far in the past. I was twenty-one days older and several years wiser.

AS SOON AS I hit town, I hunted up the yards of the Southern Pacific at River Station. My uncle's run had been from there to Bakersfield; a one-hundred-and-sixty-eight-mile division over Tehachapi Mountain. I visited a barbershop and cleaned up and then I met my namesake. He didn't know me at first, for I had grown some. I could tell that he was glad to see me but he also seemed restless and disturbed. Finally the truth came out. It appeared that his Winslow, Arizona, strike reference had cropped up again and he was on the loose. The day after my arrival he took me over to Mojave with a freight crew. While we were there he received a Western Union message from Great Falls, Montana, where he had a Superintendent friend. "Come at once," was all the wire said.

Naturally my uncle hesitated to go, but

SOON he came, to take me to the ranch

I insisted that he should. I told him, with all the conviction I could muster, that it would be no trick at all for me to get some kind of a job, and to stop worrying about me. Reluctantly he left.

Under the circumstances I hadn't the heart to tell him that I was flat broke. I caught a freight and hoboed over to Barstow, where I tried for a job firing. But the master mechanic only laughed at me. He said I was only a boy, and that he needed men, and rugged ones at that. I tried to argue, telling him that I was a bull dog for my size. He only laughed the more, and brushed me away. My personal stock was beginning to fall.

Never before in my life had I asked anyone for something to eat. And now I didn't just know how to go about it. After a couple of false starts, I finally persuaded my feet to carry my hungry stomach into a railroad hotel. It bore a name which one day was to become as familiar to me as my own: *Harvey House*. Flushed with embarrassment, I tried to tell the young lady behind the counter what I wanted. She was older than I, and worldlywise,

Collection of D. L. Joslyn, 2164 Castro Way, Sacramento, Calif.

CENTRAL PACIFIC engines like the 1811 were hauling passenger equipment out of San Francisco when Railroad Jim hit the master mechanic there for a job firing

and kind. She told me that three passenger trains would take supper there shortly. After they were gone, she said, she'd bring me a real meal.

She was as good as her word. Hardly had the last batch of passengers departed before I was seated at the lunch counter, stoking away a far finer feed than I could ever have ordered. As soon as I finished I helped the girls clean up the dishes. I don't know how many people had eaten there, but from the stack of chinaware, it must have been half of California.

Back in Mojave, the following afternoon, I tried with several others to catch a northbound freight for Bakersfield. But I waited a little too long and missed it. That was where Fate stepped in. For soon afterwards the cars piled up in the loop tunnel, killing one hobo and injuring the rest.

I arrived at Kern City about eight the next morning. Once again I hit the master mechanic's office for a job firing, and was told that keeping a freight hog hot was no work for a boy. Then I made my way over to the San Francisco & San Joaquin Valley Railway in Bakersfield. This line had just opened for business into Stockton, about three hundred miles away. Here the master mechanic gave me more consideration than the others. He said they were not hiring anyone just then, but suggested that I drop in later, as they used small engines. Obviously my size was proving a handicap.

Still, I had to eat, and while I could go on hoboing from place to place, that would never get me anywhere. So I started looking for some kind of a job where my height and weight would not count against me. Learning of a place called the Ranchers' Exchange—a kind of general merchandise store that handled everything from matches to threshing machines—I strolled over there and took a seat in a large room, called the *Bull Pen.*

THIS BULL PEN was a large side room or shed, outfitted with a few old chairs and benches, but otherwise bare. Not a very cheerful spot for one who was already homesick and hungry. My fate was to wait until some rancher came in and hired me.

The first man to enter the Bull Pen looked me over and turned away without saying a word. I read his thought as clearly as though he had spoken it. It was the same old story: *too small.*

Then another rancher showed up. He wanted a man to drive twelve mules. Since this was at least eight beasts above my ability, I was still out of luck. I waited awhile longer and finally a third prospective boss stepped in. He was different from the other two. A round face, steady blue eyes behind steel-rimmed glasses, and a melodious voice gave him an air of quiet refinement. He said he wanted a man to do general ranch work and would pay the regular price of one dollar a day with board and a place to sleep. That is, provided I could stand the extreme heat of San Joaquin Valley. I told him that I was a glutton for punishment and that he needn't pay me one cent if I fell down on the job.

The deal was clinched and he soon called for me. I tossed my grip into the back of his two-horse buckboard, climbed onto the seat beside him, and we were off in a cloud of dust. He drove seven miles south, then six miles west, on sandy section line roads. Arriving at the ranch house late that afternoon, we were met by his wife, who proved to be quite his equal for kindness, and a good cook, too.

It seems that my employer had come west from Maine, where he had been a locomotive fireman until his eyesight became poor. This made me like him even more and when we weren't working, we passed many hours talking railroad. He was surprised to find me so well posted on rules and signals.

But in spite of all that, I gradually grew homesick. I had nothing to prevent me from returning to Kentucky but my Irish pride. I had failed to get the job my uncle had promised me, and I didn't want to go back and face the music and be laughed at. So I stayed on until I had a stake of over five hundred dollars. Then I bought my-

self the best clothes I had ever owned and went back to make the rounds of the railroad terminals in Bakersfield again. But I had no better luck than before. Considerably discouraged, I rode up to San Francisco via Fresno, Stockton, and Sacramento, trying at each of these points to hire out on the road. Everywhere they said the board was full. I left the Golden Gate City on November 22, 1899, with a first class ticket to Cincinnati, traveling over the old Central Pacific, Denver & Rio Grande, Burlington, and the Big Four. On a snowy evening, one week later, I was back in Williamstown, Kentucky.

No one had known that I was coming and I feared that I would be joked pretty hard. I was right. But I had so much to tell about things that none of my associates had ever seen or even heard of that I was not bothered much. I described the great Mississippi River and its broad levees, the large herds of long-horn cattle in western Texas, the desert lands, and the natural resources of California: giant redwood trees, the Yosemite Valley, the Pacific Ocean, and the Golden Gate. All of these stories I confined to simple facts, but even so, I was often laughed at.

As soon as I could, I went to visit my little schoolmate. She was overjoyed to see me back alive, and shared my disappointment in California as if it had been her own. But it was my bad luck to become homesick again within a few weeks of my return. Only this time I discovered that I was as lonesome for the West as I had formerly been for Kentucky. In this respect I was a puzzle even to myself. And to top matters off, a little party given in my honor at about this period threw me into a still worse dilemma.

For there I met another girl with whom I had gone to school when we were very young. I hadn't noticed her much then, but now I found her irresistible. I called to see her several times during my stay at Williamstown and with each trip my infatuation grew. I still dropped around to visit the little red-haired girl and she was always so kind and understanding that my heart ached. But love had handed me a lap order—one that was destined to wreck three lives.

NATURALLY I was anxious to find some sort of job as soon as possible. A farmer uncle of mine who lived near the Southern Railway station at Rogers Gap, Kentucky, sixty miles south of Cincinnati, suggested that I might learn telegraphy there. He offered me board and room while I was learning, in return for which I was to help him nights and mornings with his barnyard chores.

It was interesting study, and I liked it, but not as a livelihood. In a reasonably short time I was able to send and receive at a slow rate. And then one day the operator left me in charge of the office. He was gone longer than either of us had expected. Rogers Gap was located right at the top of a long upgrade running north. While I was alone in the station, Number 38, a double-headed stock train, was reported by Georgetown, seven miles to the south. I knew that it would be along in a very short while, so I stepped out and looked everywhere for the op, but without success. As I returned to the office I could hear 38 pulling the hill. By now the dispatcher was calling Rogers Gap. I knew he wanted to ask about the stock train, and perhaps hold them for an order. How I wished the operator was there. I stepped to the door again. The train wire continued to click off RO—RO—RO (our call). For an instant I thought of clearing the board and disregarding the dispatcher. Obviously, though, that could get us into trouble.

The leading engine was nosing through the deep cut at the top of the hill. She blew one long blast for the station, and then four short ones for the board. I pressed the telegraph key open and answered, "I—I—RO." Quickly came the response, "Number 38." I answered, "CMG," meaning *coming,* and the dispatcher snapped back, "OK—CLR." By this time the engineer was calling for the board a second time. When I dropped it, he answered with two blasts of his shrill whistle, and went on through as if he

never expected to stop again. About the time the caboose passed, the operator arrived on the run. He had heard all the calling for the board, and didn't know what I would do. Nothing was ever said about me taking charge of the wire, and from that time on I frequently sent and received messages.

Aware, now, that I stood practically no chance of being taken on as a fireman, I set my mind on braking. Our trainmaster was J. W. Hood, a fine man who occasionally stopped in at our station. Whenever I saw him, I asked for a job in train service. In his kindly way, he never mentioned my being small, but he did try to dissuade me. He asked why I wasn't content to go ahead in the telegraph department, since I had put in considerable time to study and master it. Then I explained what a wild goose chase I had made across the continent and he seemed touched. He sat thinking a long while. Finally he looked at me with a kindly twinkle in his eye and said that he would put me to work in the fall, when business picked up.

He was as good as his word. One Saturday night about the middle of August, I received a letter instructing me to call at the McLean Avenue freight office, in Cincinnati, where the yardmaster would deliver me a permit to ride freight trains between there and Somerset, Kentucky, learning the rules, signals, and duties of a brakeman. When I had made a thousand miles, I was to report to the office of the trainmaster at Lexington.

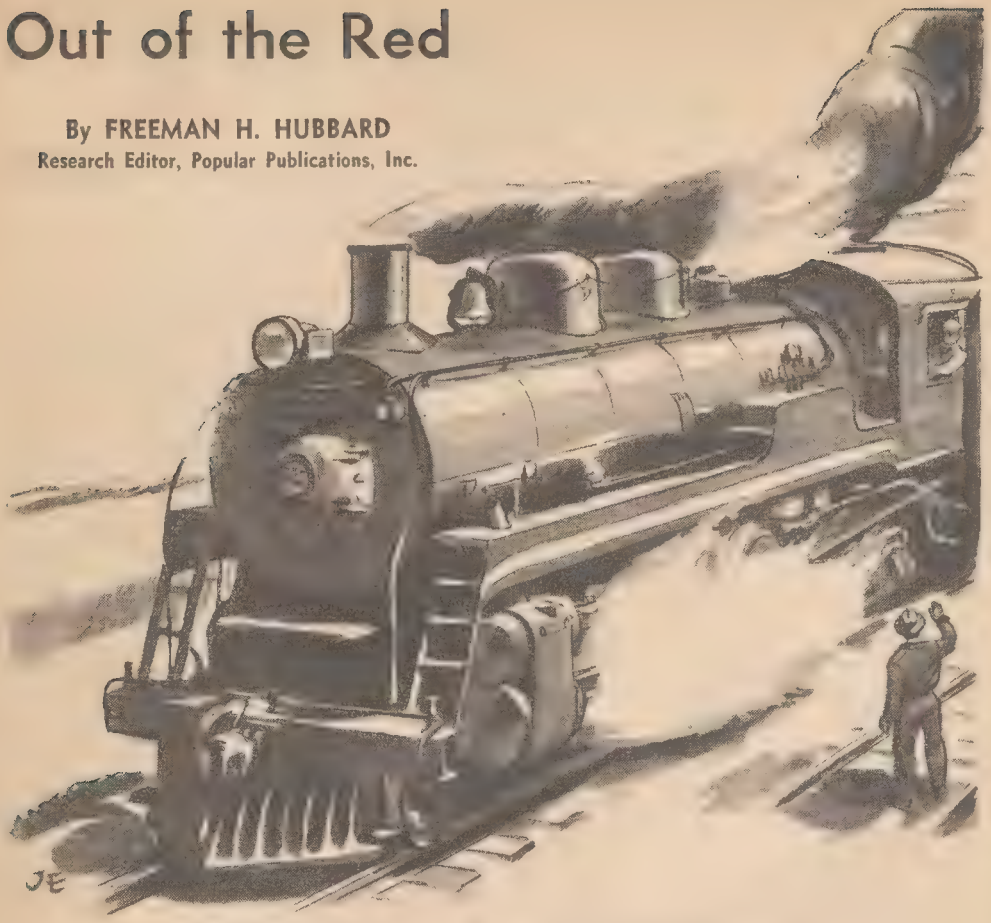
How this letter made my young heart pound! When the yardmaster arrived at his office on Sunday morning I was there to meet him. He read my note and gave me the necessary permit. Every conductor I went out with signed it, stating that I was a good prospect, and as soon as I had covered my mileage, I reported to Mr. Hood. He congratulated me on such a fine report and passed me on to the chief train dispatcher for an oral examination.

I answered questions on train rules and signals as fast as he could ask them. He was surprised to find me being so well posted, and called in Superintendent H. M. Waite. Between them they finally decided that I was too well informed to be a student brakeman, and must have been discharged from some other job. In desperation, I asked them to check with Mr. Hood. He vouched for my story and the examination proceeded. I was assured that I had acquitted myself with honor.

I was an extra brakeman! I had a pass to Ludlow, Kentucky, and would shortly be helping to put freight right through my old home town. My greatest wish in life had been granted. Yet, as you will soon see, this was the beginning of a strange and singularly unlucky career. Had I known then what the years ahead held for me, the life of a blacksmith or a farmer would have seemed agreeable by contrast.

Out of the Red

By FREEMAN H. HUBBARD
Research Editor, Popular Publications, Inc.



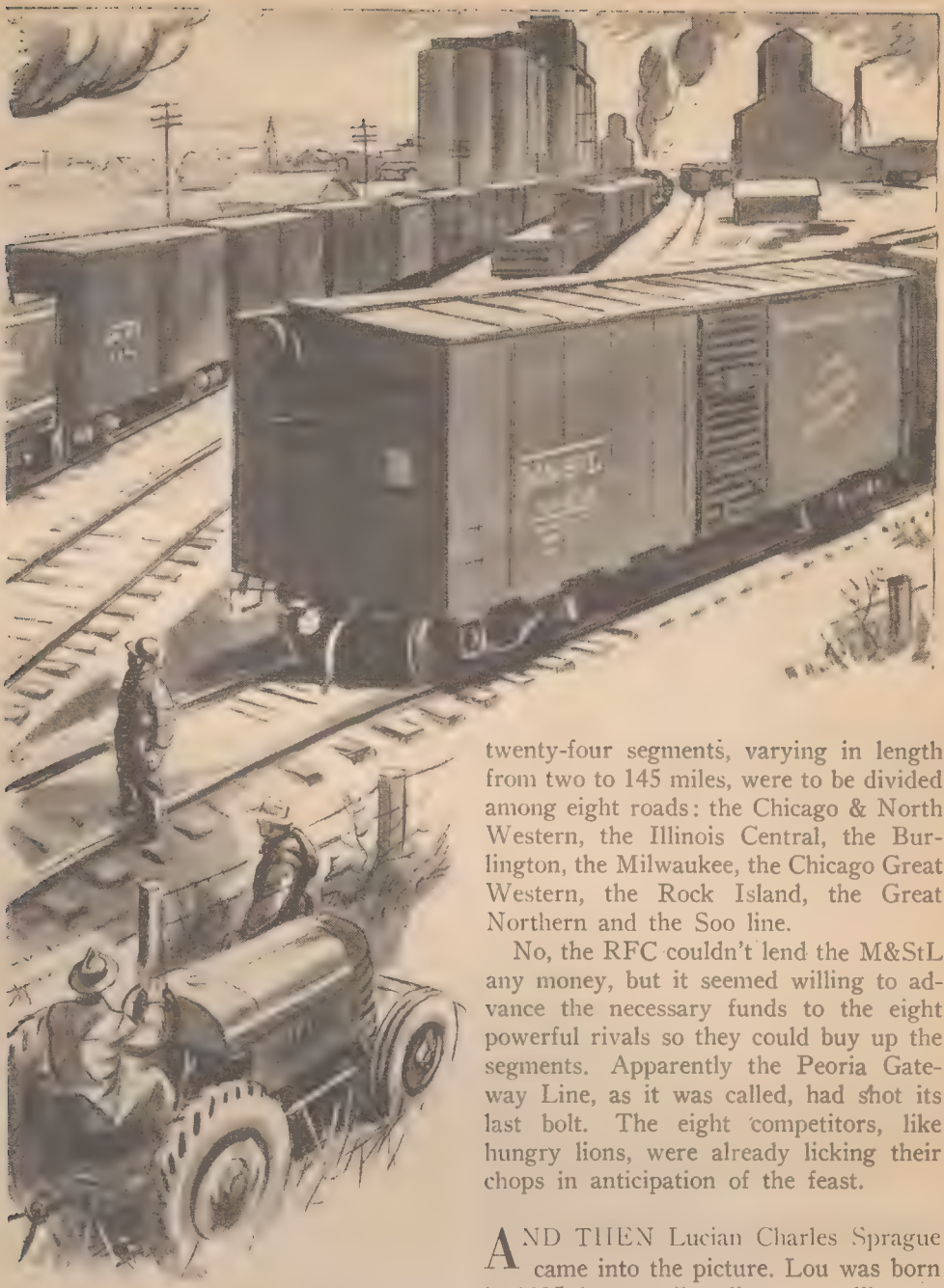
The Old Minneapolis & St. Louis Has Finally Emerged from the Longest Railroad Receivership in History

IT WAS ALL OVER but the funeral. The "Misery & Short Life," as the Minneapolis & St. Louis was dubbed in derision, had been in hock since 1923—the longest rail receivership in history—and just about everybody had given up the 1500-mile pike as another lost cause.

Again and again plans had been devised to inject new life into the feeble patient, but the remedies applied were only temporary. Attempts had been made to merge with other systems; but these, too, had failed. On several occasions the Misery & Short Life had been dragged onto the auction block—nobody wanted to buy. In 1934, when the Receiver applied to Jesse Jones, chairman of the Reconstruction Finance Corporation, for an additional loan, the answer was a foregone conclusion. Practical Mr. Jones studied the balance sheets and shook his head.

"I don't know whether you could *give* your line away," he snorted, "but you might be able to *throw* it away."

This was rather depressing. But the pudgy-faced RFC chairman relented to the extent of working out an elaborate dismemberment scheme for salvaging part



of the investment. He advised that the unprofitable system be cut into forty-three pieces. Of these, nineteen were to be abandoned right away—a total of 507 miles, including 284 in Iowa, 168 in South Dakota and 55 in Minnesota. The other twenty-four segments, varying in length from two to 145 miles, were to be divided among eight roads: the Chicago & North Western, the Illinois Central, the Burlington, the Milwaukee, the Chicago Great Western, the Rock Island, the Great Northern and the Soo line.

No, the RFC couldn't lend the M&StL any money, but it seemed willing to advance the necessary funds to the eight powerful rivals so they could buy up the segments. Apparently the Peoria Gateway Line, as it was called, had shot its last bolt. The eight competitors, like hungry lions, were already licking their chops in anticipation of the feast.

AND THEN Lucian Charles Sprague came into the picture. Lou was born in 1885, began railroading as a callboy on the Burlington in 1899, and climbed his way up the ladder, serving successively as block operator, nut-splitter apprentice, brakeman, locomotive fireman, and hog-head of the official inspection engine. La-

ter he worked for the Great Northern and the B&O. Still later, as a consulting engineer, he did some important chores for the Denver & Rio Grande. In 1923 he became Vice President and General Manager of the narrow-gage Uintah Railway. In '32 he landed a brass-hat job with the Katy; and on New Year's Day of '35 he was given the thankless position of Receiver for the M&StL. Now that Sprague was in charge, the corpse would at least receive a dignified burial.

But Lou had no intention of presiding at a funeral. He had learned his trade the hard way, and up till that time he'd had a successful career. So he set himself to the herculean task of pulling the "Gateway" out of the red. The wise guys in financial circles snickered. The M&StL was a dead duck. Everybody knew that —everybody but Lou Sprague.

The new Receiver had never acquired the habit of defeat. Back in 1923, while bossing the Uintah, he had taken a fling at the ponies. That is to say, he had made a hobby of rebuilding broken-down horseflesh into racetrack winners. And now it occurred to him that, by using the same fundamental principles, he might put the iron horse into fair running shape. He would discover what was wrong and apply the cure.

The story is told of Sprague that he once bought a big gray for $175, after its owner had rejected $8000 for it a few years before, and after the steed had become an "outlaw" on the tracks, ungovernable and unpredictable. Lou examined the horse sympathetically. He found that its only difficulty was an abscessed tooth. A veterinarian yanked out the tooth. The animal showed its gratitude by winning sixteen of the next twenty races in which it was entered, besides romping away with second place on the other four events! Lou was proud of this record.

Another horse, rejected by "experts" because of its bowed tendons, was taken over by Mr. Sprague and given suitable treatment; and soon this beast, too, began to win races. So when the new Receiver came to the Misery & Short Life he knew that the first step in effecting a cure was to diagnose the patient.

His diagnosis was not too hopeful. The 1934 gross income of seven and a half millions had produced a net deficit of $41,000. A mountain of unpaid bills—$525,000 for material purchases—stared Mr. Sprague in the face. To meet these overdue obligations there was only $103,000 in bank.

Lou rolled up his sleeves and went to work. Six months later the cash in bank had grown to $323,000, while the unpaid bills for material purchases had shrunk to $424,000. But these items meant very little. The company's red entries showed that Receiver's certificates, representing money borrowed before 1935, amounted to

ENGINES too weak to pull a setting hen off her nest cluttered up the rusty sidings for long, unprofitable years

$1,185,000 and were due before the end of 1935; while equipment trust certificates, due over a period of years, stacked up to nearly two million dollars.

On top of all this, the road's equipment and power were a butt of ridicule. Much of it was sadly in disrepair. Long strings of dilapidated cars, and old engines too weak to pull a setting hen off her nest, had cluttered rusty sidings for years. Spiders spun webs there undisturbed. Countless miles of tracks were equipped with battered rail, rotted ties and poor ballast, not to mention the insufficient drainage. Such track was unfit even for slow trains to run on. Bridges and other structures were no better.

Gloom permeated the ailing railroad system. Employes asked one another, "How much longer will it last?" There was little incentive for men to do their best work; the morale of employes was at a low ebb. The years 1935 and '36 were a grim struggle for survival. Figuratively, the buzzards were wheeling overhead, ready to swoop down when the time came.

BUT Sprague hung on. One of his first decisions was an order to scrap all worthless equipment. The cash realized from this junk he used to meet payrolls and some of the more urgent bills, also to buy a few badly-needed coal and automobile cars. At the same time, about 250 miles of profitless branch lines were abandoned, while a million or so passenger-train miles per year were eliminated.

Changes in operating methods resulted in large economies. The traffic solicitation force was expanded. Among other new agencies set up by the far-sighted Sprague regime was an industrial department for luring shippers to the Peoria Gateway Line. This bureau persuaded at least three hundred new industries to locate near the system. The apparently dying patient fluttered his eyelids and began to take nourishment. Company revenue graphs slanted upward. The column of black figures was creeping up on the red ones. Mr. Sprague and his colleagues chuckled with satisfaction and toiled harder than ever.

As earnings improved over the years, new rails and ties were bought, the roadbed was reballasted. Dingy bridges, shops and other buildings were repaired and given fresh coats of paint. Thirty-five locomotives were happily singled out for modernization. Sprague personally redesigned them.

Many new freight cars were secured on a rental-purchase basis. This provided the road with an adequate supply and cut car-

rental payments to other pikes. Another thrifty move was made in 1936—current material bills were discounted, saving about $10,000 a year. The mythical buzzards must have lost heart altogether when the rejuvenated Minneapolis & St. Louis paid in full its Receiver's certificates of $1,185,000.

Lou was again vindicating the time-tested theory of Jim Hill, that if you labor for the prosperity of the territory you serve, you yourself will share in that prosperity. It's good business strategy.

From $7,500,000 in '34, before Sprague took hold of the Peoria Gateway, the road's annual income jumped to $13,550,000 just eight years later. Over the same period the next income changed from $41,000 in the red to $2,800,000 in the black.

The big chief, having been an engineman himself, realizes that just as a steam locomotive can't wheel tonnage without steam, so no outfit can get or handle its share of business without enthusiasm.

"Our organization today," he says, "is just as good as you'll find anywhere in the country. Employe morale is reflected in the financial statements. All our expenditures for improving the railroad were made out of earnings, approximately $14,000,000 having been plowed back into property betterments from this source in the past nine years."

Lou Sprague, President of the M&StL

"Plowed back" is an apt metaphor as applied to this line. The Minneapolis & St. Louis is mainly a farm road—in fact, Iowa's largest grain carrier. Most of its present 1409-mile right-of-way is in Iowa. The M&StL originated, however, at Minneapolis, its first trackage being the fifteen miles laid out of that city in 1870. But two integral parts of the modern system date back still further. First was the old Des Moines & Fort Dodge, incorporated 1854, which was merged into the M&StL in 1915. Then came the old Iowa Central Railway, which

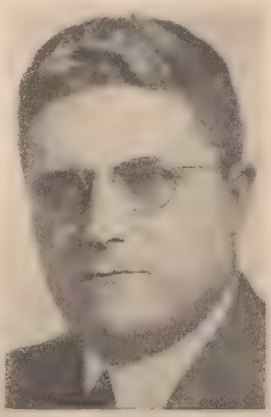
From Railroad Photographic Club, 37 Royal St., Allston, Mass.

ONE of the roads's four ten-wheelers, No. 228, is shown ready to highball a passenger train out of Peoria, Ill.

A DOZEN Diesel switchers have been acquired by the M&StL under the Sprague management. They were built by Alco, Baldwin and General Motors

sprang from the Eldora Railroad & Coal Co., incorporated in 1866. This one entered the M&StL family in 1912.

Relatively few large communities are served directly by the Peoria Gateway Line. These include Minneapolis, Des Moines, Peoria, Fort Dodge, Marshalltown and Oskaloosa. It's primarily a freight-hauler, carrying only local passengers. Farm products such as wheat, corn, barley, oats, rye, potatoes, soy beans, cattle and fresh meat account for more than half of its on-line traffic. The M&StL was the first carrier to run a soy-bean train and introduce this crop to farmers. As a result, the road is now handling a lot of soy-bean tonnage, because it taps the great soy-bean-raising counties of Iowa.



John W. Devins, Vice President and General Manager

Thus the Peoria Gateway's fate is linked with that of the farmer. As the Farm Belt sank into the doldrums of the 1920s, the road began to pile up a staggering debt and was dragged into a receivership that lasted for twenty long years and six months. When the Reconstruction Finance Corporation boys saw that Lou Sprague had brought the M&StL corpse back to life, as it were, they were perfectly willing to lend the road as much money as it needed, up to four millions; but by that time the "Gateway" was standing on its own feet. Sprague found it unnecessary to borrow from any source. The M&StL had ceased to be in the red.

THIS victory was due to many factors, one of which was the much heavier traffic of wartime. Among others may be mentioned Sprague's leadership, the loyalty of M&StL officials and the men in the ranks, and the tenacity of bondholders and farmers. In fact, some kind of medal should be passed out to everyone who helped to fight the dismemberment plan. A former Governor of Iowa, John Hammill, died of a heart attack in a Minneapolis hotel in 1936 while attending a

hearing in protest against parceling out the M&StL. Fortunately, the Interstate Commerce Commission turned it down. The railroad was saved in its darkest hour.

Early last December the receivership was ended. The road resumed operation under private owners, with Mr. Sprague as President, C. W. Wright as Vice President and General Counsel, Herbert W. Ward as Vice President in Charge of Traffic, and J. W. Devins, Vice President and General Manager.

Says Lou: "The only large expenditure facing the management today is for a new shop and facilities at Minneapolis. This, of course, cannot be undertaken until after the war."

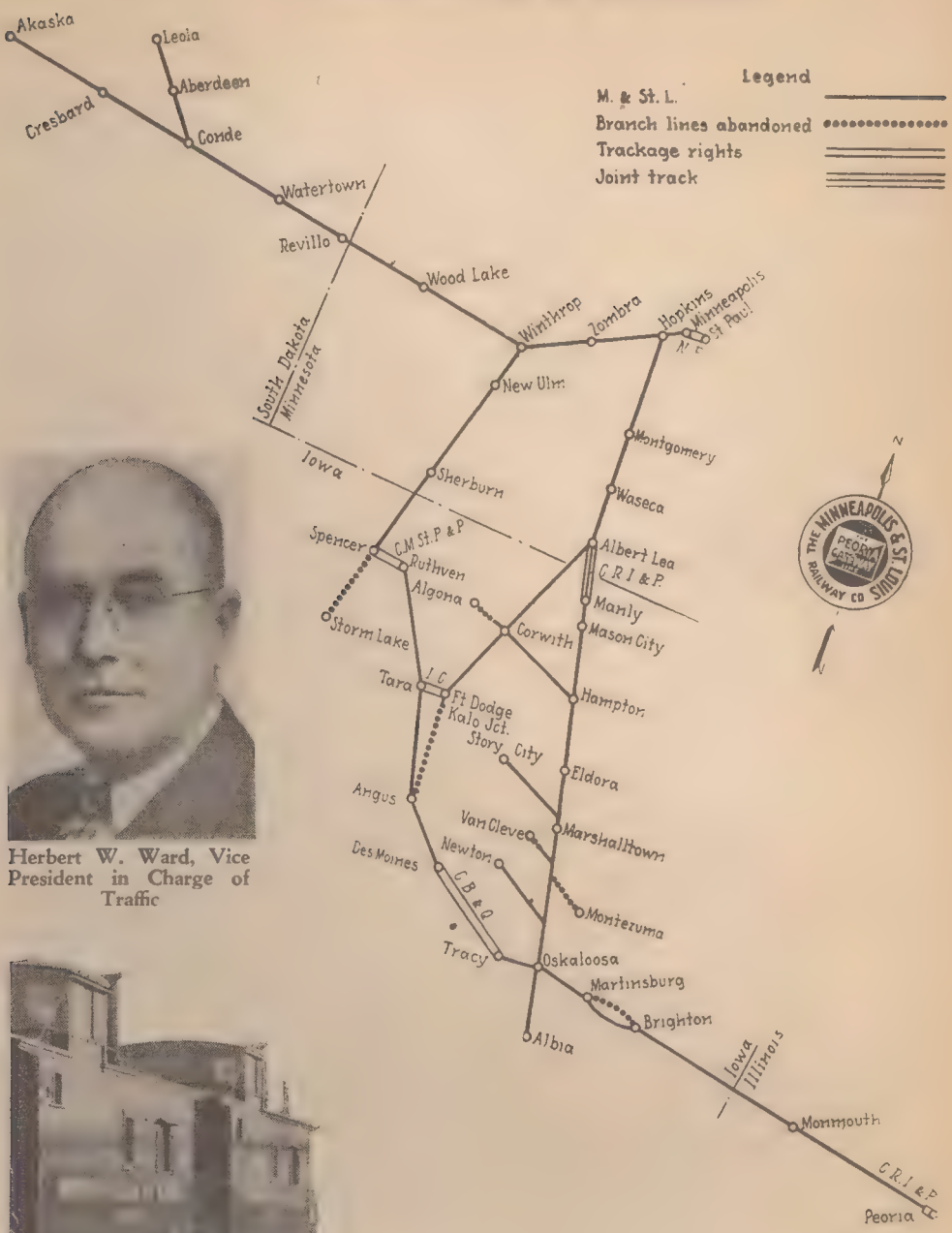
Main shops now are there and at Marshalltown, Iowa. Marshalltown was the birthplace of William H. Bremmer, who served the M&StL from 1909 till 1934. Mr. Bremmer was President and then Receiver. At his death Lou took over. Backbone of the entire railroad and its real money-maker is the Minneapolis-Peoria Division. Shippers of freight between Minneapolis and Peoria have a choice of several routes, but the M&StL has the edge on its competitors because it skips the Chicago traffic bottleneck and thus increases the speed of delivery.

"A long-range improvement program is being carried on," reports the President, "and the Minneapolis & St. Louis will be a going concern under any foreseeable conditions, and will be able to compete successfully with other carriers in its territory."

The outlook is bright, for the war boom has not been the foundation of M&StL's recent success. It began well before 1941, and it is further significant that there is but one war industry located directly on the Peoria Gateway route.

During the past six years more than fourteen million dollars have been spent in remodeling the road and its equipment. In that time eighty-two locomotives were rebuilt, their tractive effort being in-

MINNEAPOLIS & ST. LOUIS



Herbert W. Ward, Vice President in Charge of Traffic

TRAINMEN who herd freight over the Peoria Gateway Line are rather proud of their nine recently-acquired, modern, steel-underframe cabooses, three of which are pictured here.

creased 35 percent. Orders for five steam engines were placed with Baldwin last August. These are to be 2-6-6-4 types, each weighing 490,000 pounds, with 82,300 pounds tractive force and four cylinders of 22 by 30 inches. However, the War Production Board has not yet approved this deal because steel cannot be obtained to rebuild several bridges up to the load factor required by the new engines.

Since Sprague took charge of what many people thought would be the M&StL funeral services, the road has scrapped 88 locomotives and about 2900 freight cars, including 266 cabooses. It has acquired nearly 2700 new freight cars, among them a dozen cabooses completed in the company's shops last December.

Also on the list of new equipment are a dozen Diesel yard goats, a couple of snowplows (which already have been put to good use), nine modern steel underframe cabooses, four tankers, eight sand cars and two swanky official business cars.

C. W. Wright, Vice President and General Counsel

Meanwhile, the job of rehabilitating old rolling stock proceeds merrily. And tie renewals under Sprague have exceeded three million.

All in all, it's not a bad record. And after the war, as Mr. Sprague points out, there will be another huge volume of freight for the railroads.

"Business is accumulating behind a sort of war log-jam," he says, "and will be released with a rush when the peace treaties are signed."

There are still eighty-six American railroads in the hands of Receivers or Trustees, but M&StL is not one of them. The old Peoria Gateway Line is definitely out of the red, and Sprague intends to keep her that way. Under his aggressive management a profitable future seems assured.

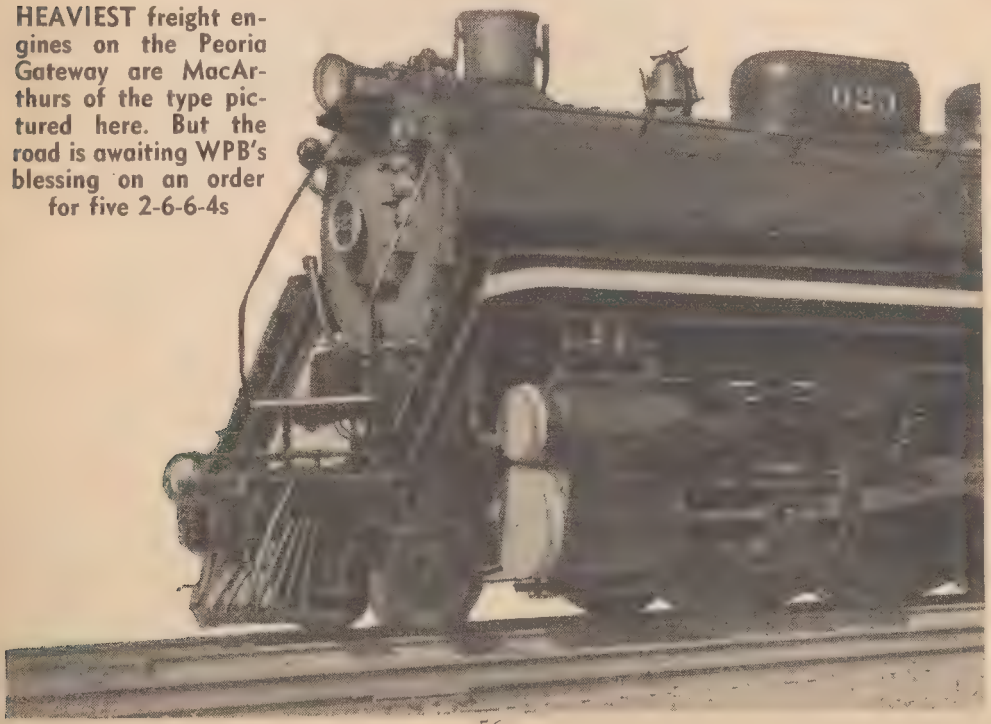
WORNOUT EQUIPMENT such as the car you see here was blocking the M&StL's road to recovery when Sprague took charge. One of his first official acts was to relegate the junk to the scrap pile where it belonged

BACK IN THE DAYS: Flag Stop.....By Harry C. Temple

Locomotives of the Minneapolis & St. Louis Ry.

Class	Numbers	Cylinders (Inches)	Driver Dia. (Inches)	Boiler Pres. (Lbs.)	Engine Weight (Lbs.)	Tract. Force (Lbs.)	Builder. Date
			Six-Wheel Switcher (0-6-0 Type)				
B3–35	80–89	21x28	57	190	172,000	35,000	Pittsburgh, 1916
			Mogul (2-6-0 Type)				
F5–32	67	20½x26	51	175	157,000	31,870	Baldwin, 1909
F1–27	304	20x26	63	190	142,200	26,660	Schen., 1902
F1–28	310, 312	20x26	63	200	141,500	28,100	Schen., 1899
F2–33	(329–331) (333)	20x28	57	200	150,000	33,400	Baldwin, 1908
			Ten-Wheeler (4-6-0 Type)				
G6–26	226–229	20x26	67	200	167,000	26,390	Baldwin, 1909
			Consolidation (2-8-0 Type)				
H2–38	(400–401) (404–406) (408, 410) (412, 419)	21x30	59	200	172,000	38,100	Baldwin, 1909
H5–39	(450, 452) (453, 458) (460, 461)	22x30	59	185	200,000	38,670	Schen., 1912
H5–42	(454–457) (459)	22x30	59	200	200,000	41,800	Schen., 1912
H5–42	451	22x30	59	200	215,400	55,800	Schen.. 1912
H6–38	(462) (468–471) (473–474) (477–479) (481)	21x30	59	200	200,000	38,100	Baldwin, 1910

HEAVIEST freight engines on the Peoria Gateway are MacArthurs of the type pictured here. But the road is awaiting WPB's blessing on an order for five 2-6-6-4s



Pacific (4-6-2 Type)

K1–32	502	22x28	69	190	226,500	31,800	Brooks, 1921

MacArthur (Mikado—2-8-2 Type)

Mac 1–50	(600) (602–605) (607–610) (612–614)	24x30	59	200	260,000	49,800	Schen., 1915
Mac 1–50	615–618	24x30	59	200	260,000	49,800	Brooks, 1916
Mac 2–61	606, 611	24x30	59	200	285,500	61,300*	Schen., 1915
Mac 2–61	619	24x30	59	200	285,500	61,300*	Brooks, 1916
Mac 2–61	620–634	24x30	59	200	285,500	61,300*	Brooks, 1921

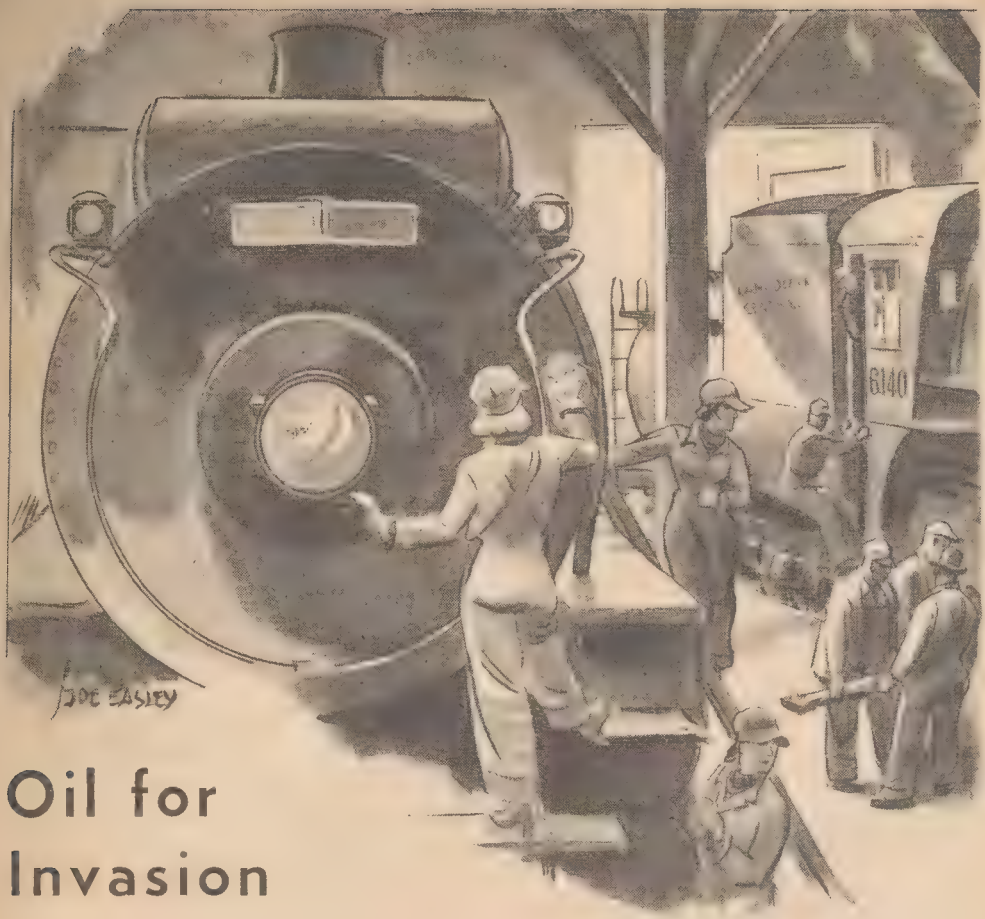
**Including Booster*

Diesel-Electric Switchers (0-4-4-0 Type)

Numbers	No.	Cylinders (Inches)	Driver Dia. (In.)	Weight (Lbs.)	Horsepower	Builder, Date
D–438	8	8x10	40	206,600	600	El. Mot., 1938
D–538	12	8x10	40	253,300	900	El. Mot., 1938
D–738	12	8x10	40	253,300	900	El. Mot., 1938
D–838	8	8x10	40	206,600	600	El. Mot., 1938
D–139	12	8½x10	40	249,600	1000	El. Mot., 1939
D–539	6	12½x13	40	230,000	1000	Schen., 1939
D–939	6	12½x13	40	196,800	660	Schen., 1939
D–340	8	12¾x15½	40	237,300	1000	Baldwin, 1940
D–740	12	8½x10	40	248,500	1000	El. Mot., 1940
D–741	6	12½x13	41	230,000	1000	Schen., 1941
D–742	16	5¾x8	33	88,000	380	Gen. El., 1942
D–842	16	5¾x8	33	88,000	380	Gen. El., 1942

Gas-Electric Cars

Numbers	No.	Cylinders (Inches)	Wheel Dia. (Ins.)	Weight (Lbs.)	Horsepower	Builder, Date
GE–1	6	8x10	33	127,800	300	El. Mot., 1929
GE–2	6	8x10	33	127,800	300	El. Mot., 1929
GE–3	6	8x10	33	127,800	300	El. Mot., 1930
GE–4	6	8x10	33	130,000	300	El. Mot., 1931
GE–25	8	8x10	36	146,250	400	El. Mot., 1930
GE–26	8	8x10	36	146,250	400	El. Mot., 1930
GE–27	8	8x10	36	146,250	400	El. Mot., 1930
GE–28	8	8x10	36	146,250	400	El. Mot., 1930
GE–29	8	8x10	36	146,000	400	El. Mot., 1931
GE–30	8	8x10	36	145,000	400	El. Mot., 1931
GE–31	8	8x10	36	145,000	400	El. Mot., 1931



Oil for Invasion

The Super Had No Time for Alibis; He Needed That Engine Right Away

INCREDULITY and anger knotted the features of Superintendent Mackie. The freshly-lighted cigar in his lantern jaws jerked upward to a belligerent angle, almost meeting his dark bushy eyebrows.

"No engine available for the oil run?" he stormed. "Well, there'd better be. The Canadian Central is fighting this war just like everybody else. I want the 6140 and the best runner in the chain gang—"

"But, Mr. Mackie—"

The Super glowered at Jim Truman, his fat, moon-faced, locomotive foreman. He knew an excuse was coming up and he sought to head it off. The 6140, a powerful freight-hauler, was being held in the Varnia roundhouse while the shop staff installed a new automatic blowoff system on her. There was no good reason, in Mr. Mackie's judgment, why she shouldn't be used on the oil run that morning.

Jim held a different opinion. Seldom did he agree with the Superintendent on a controversial issue. This time he said:

"I've got every machinist I can spare

By WILLIAM J. PARRY

Canadian National Engineer

workin' on the 6140, Mr. Mackie, but that engine won't be ready for the oil run."

Mackie snorted. "Jack up the men! Get the lead out of their pants! There's a war on, and this hotshot—"

"The Shop Committee is on my neck right now, complainin' about the men not bein' allowed enough time to do their work, and bein' short-handed."

"Shop Committee my eye! Don't let that bunch of loafers bluff you, Truman. You're paid to see that jobs are done in the shortest possible time."

"But this ain't Germany," the foreman protested. "You can't rawhide top-notch machinists on the Canadian Central."

"Maybe you're right," Mackie conceded, "but there must be some way of getting engines ready when they're needed."

"Not any more. Not since everything's in the pool. It was different when each hogger was assigned to his own engine. We could keep the power in shape then. But now—"

"No use beefing about bygone days. The 6140 must be ready to haul those tankers this a.m., even if you and I have

to finish installing the blowoff system ourselves."

Superintendent Mackie rose to his feet, scraping back his chair. Striding into the outer office, which was also the register room, he glanced at the board. A female crew dispatcher had just finished arranging the names of men in the chain gang, alongside the numbers of trains they would handle, and at the top was John Naylor.

The Super turned to his locomotive foreman. "Who's this Naylor that's first out? I don't seem to know him."

"Naylor's the youngest engineer in the chain gang," Jim responded. "Just been set up runnin', in fact. He'll get the oil train if—"

"No, he won't! I want an experienced man on that job. Call the best one you've got, regardless of run-arounds."

Jim groaned. The speed artist was "Shorty" Bayliss, and he was five times out. If used in his proper turn, Shorty would draw a pick-up freight drag. The oil run would be a break for him, of course, but it would mean not only revising the line-up but also trouble with other engineers.

"Who will pay the run-around tickets that come into this office if we use Shorty out of turn?"

"I'll take care of the tickets," Mackie promised. "This is a case of emergency. You have the dispatcher call Bayliss. I'll go out to the roundhouse and hurry the work on the engine."

SHOPMEN on the night shift were gathering up their tools and preparing to punch the time clock when Superintendent Mackie arrived. He walked around the engine, noting how much progress had been made on installing the automatic blowoff cock. A boilermaker had cut and tapped the two holes for electrodes in the boiler, back of the steam dome, but the pipe-fitters couldn't get started until a nut-splitter had mounted the equipment's various parts.

The night machinist, "Reds" Baker, had made templates for brackets to mount the control box and the solenoid air valve. He was standing at the work report desk, booking off the jobs done on the 6140, while his helper, Charlie Slater, was writing time tickets.

Superintendent Mackie hurried over to the desk. "I want you fellows to lend the day men a hand with the 6140," he said. "We need her for the oil run. How about it?"

Reds rubbed a grimy hand along his chin. He looked at Charlie, who was grinning, and asked: "How about it, kid?"

"What do I care?" the helper answered. "I'm just listening."

"And you, Baker?" Mackie prompted.

"I'm dead tired. But if you need the engine for the oil run, we'll work overtime. Time-and-a-half pay ain't bad. Get the tools, Charlie!"

"That's the spirit!" exclaimed Mackie, who had once been a shopman himself.

The Super plunged into the smoke and steam of the roundhouse, followed by the waddling form of Jim Truman. At the twentieth pit of the forty-stall roundhouse he found an electrician testing the dynamo governor of the passenger engine assigned to train Number 6, the *Inter-City Limited*.

Mr. Mackie's gray eyes blazed under the bushy brows. "Dammit!" he cried. "Why isn't that man at work on the 6140? He should be cutting the right-hand rail for the junction box to connect the conduit for the wires with the electrodes of the blowoff system."

"I have to get the 6400 ready for Number 6," the foreman drawled. "No hogger will leave the shop track with a dynamo on the bum."

Superintendent Mackie's six feet of bone and sinew tensed indignantly. "Engines assigned to the oil run must have priority on running repairs. Send that electrician over to the 6140 and let a helper fix the dynamo. What's wrong with it, anyway?"

"Engineer reported the governor stickin', and we found the spring corroded with boiler compound, due to engine foamin'."

"We will have no more trouble with boilers foaming, now that the company is

trying out the automatic blowoff system," the Super observed with satisfaction.

"Yeah? I hope you're right." Jim reached into his hip pocket for a plug of chewing tobacco, and bit off a piece the size of an inch nut. "They run the engines from one end of the system to the other, tie a mile of cars behind the tender and expect pre-war time. And to make the cheese more bindin', we have to dump bricks of boiler compound into the water to eat scale off the side sheets. And water-service experts issue a blowoff schedule for engineers, instead of allowin' the men to use their own judgment, and they holler about engines foamin'."

The foreman waved his arm in the general direction of the running board, where a gang of women engine wipers were using oil and waste to remove the streaks of boiler compound from the streamlined jacket.

"Even if you're right," the Super replied, "I haven't the authority to change blowoff schedules. The big fellows at Montreal are in the driver's seat, and we have to follow instructions."

"Yeah, Mr. Mackie, they expect the power to stand up under wartime conditions and the roundhouse staff to perform miracles. The only time some engines are in the roundhouse is when I have to pull them off their runs for a boiler wash—"

Steam from the cylinder cocks of a moving engine made further conversation impossible at that moment. The hostler was backing the 6189 on to the turntable and a woman operator had the long table lined up for the pit.

Superintendent Mackie puffed thoughtfully at his cigar. He watched the giant Northern-type engine back slowly through the roundhouse doors, roll on the turntable track and swing around to the outbound rails. Mackie would have liked nothing better than to assign the 6189 to the oil train. She was a later model than the 6140, with improved automatic stoker and disc driving wheels. But he had no alternative—instructions from headquarters were to use the 6140.

OFFICIAL and foreman continued their roundhouse tour of inspection. Most of the stalls occupied by engines told the same story—power withheld from service for heavy repairs because of foaming boilers. The boilermakers had opened the front end of a Northern type and were busy pulling the superheater units from the big tubes. A similar engine had her valve chamber covers off and machinists were renewing her valve bushings. Another was being fitted with new sectional piston rings, while the two remaining Northerns were already under steam, ready to haul the two sections of the Niagara Falls hotshot.

The two locomotives for the hotshot would leave ahead of the oil train. One was the latest model, 6200 class, the other a 6300 borrowed from the Mid-Vermont Railway. Mr. Mackie wished he had more of the 6300 class. They were good steamers, fine performers and popular with the engine crews. The roundhouse dispatch board showed both engines ready for the road—boiler work okay, machinists work okay and lubricator and alemite okay.

Jim Truman, as locomotive foreman, chalked his initials beside the engine numbers. A hostler climbed into the cab of the 6200 and whistled for the turntable operator. The 6200 swung around on the table and parked next to her sister engine. Soon the long, sleek behemoths would roll out of Varnia yards with the morning parade of hotshots.

The gang installing the automatic blowoff was really going to town, with the work progressing rapidly, when Jim and his boss reached the drop pit. The 6140 was in the throes of the hydrostatic test, but the tasks were distributed so there was no interference with the machinist mounting the separator on top of the boiler, just ahead of the cab. The main and side rods had been whitewashed to test for flaws, but were now up in place again, with the worn bushings renewed.

"The machinists must expect an increase in the cost-of-living bonus by the way they are rushing," Mr. Mackie remarked to

Jim. "I figure the engine will be ready for the firebuilder in less than three hours."

"I was willin' to bet my shirt it would take all day to get that contraption fixed on the 6140," Jim responded, and waddled away in search of a pipe-fitter. The electrician was ready to pull wires through the pipe and test the connections.

Soon the foreman returned with a pipe-fitter and his helper. The helper assisted the electrician, while the pipe-fitter cut and threaded the pipe to connect the funnel-shaped discharge with the separator on top of the boiler. This separator acted as a muffler to reduce the velocity of the blow-off steam and to separate the steam from the water.

Superintendent Mackie, followed by Jim, climbed the gangway ladder into the cab to see how the work was advancing with the installation of the control box. They found Reds Baker connecting the control box and solenoid air valve.

"About how long will it take you to connect the control box?" queried the official.

"A couple of hours, if I hustle," the machinist replied. He continued working at the iron box, with its two bulls-eyes—one red, the other yellow—in the hinged door.

"Looks like a miniature block signal system," commented the locomotive foreman.

"You're almost on the beam," the Superintendent said, unscrewing the wing nut that held the door closed. "The yellow light is a signal to the engineer that the boiler is foaming. When the long electrode contacts the foamy water, the yellow light flashes, and a gadget in the control box makes an electric connection that opens the air valve. The valve in turn opens the blowoff valve."

"But what's the idea of the red light?"

Mr. Mackie threw away his cigar butt. Then he explained:

"When the boiler foams so badly as to cause priming, the red light operates. It warns the engineer to get busy with the manual blowoff cock and help out the automatic blowoff system. But that's only necessary with bad water."

Jim climbed up on the engineer's seat to get a better view of the control box.

"Railroadin' is gettin' to be a hell of a joke on this pike!" he snapped. "Automatic couplers, then automatic air-brakes, automatic train control, and now," he spat disgustedly, "automatic blowoff cocks. First thing we know, we'll be equippin' the cabs with cigar lighters for the crew."

"Who cares?" Mr. Mackie roared. "Engineers can't see inside the boiler, consequently the boiler may foam slightly without a man being aware of it. By the time he discovers he is working water, and blows the boiler down, the damage is done. Lubrication is destroyed, and the engine is handling a tonnage train with saturated steam in the cylinders, wet steam in the units having destroyed the superheat."

The foreman sniffed at this explanation, but was agreeably surprised to learn that the automatic blowoff system would prevent cut valve bushings, ruined cylinder packing and damaged superheater units. Throwing aside his coat, he gave the pipe-fitter a hand to couple the piping to the separator.

While the foreman was busy with pipe wrenches, the engine dispatcher came into the roundhouse on the dead run.

"Mr. Truman," she panted, "the train dispatcher says he expects the oil train in about two hours, and he wants to know what engine you have lined up."

"Tell him," said Jim, as he heaved on a pipe wrench, "that the 6140 will be okay for the oil run. And call Engineer Bayliss and his fireman for the job."

"But—" protested the girl.

"Never mind the buts. Those are my orders," said the Superintendent. "I want everything that Mr. Truman has told you carried out to the letter."

The girl fled, knowing from the official tone that nothing could be gained by argument. She called the train office and relayed the instructions.

"Okay," replied the dispatcher wearily. "I'm figuring on a heavy train."

THE 6140 was spotted at the water plug filling her big Vanderbuilt tank, when the oil train, headed by the electric motors, rolled through the tunnel into Varnia yard.

Car toads hastened along each side of the oil tanks, lifting journal-box covers with their long-handled hammers. Close behind came the oilers, with dope pails, shoving the packing snug against the journals. A yard goat sped down the adjoining track with the crummy and coupled it to the tail-end of the train.

When Shorty climbed the 6140's gangway, his fireman, Harry Watson, was already busy with the scoop, building a fire by hand before starting the automatic stoker. Superintendent Mackie and two other brass collars followed the engineer into the cab. One of them accidentally stepped on the automatic firebox door trip. The door flew open with a hiss and bang, and the man peered into the firebox.

"That's a bright fire you have," he said to Harry. "We should make a good run."

The Super introduced the man to the engine crew. He was a representative of the Maple Leaf Oil Company, and intended to ride the train in order to report on the Canadian Central's performance.

Then Mackie introduced his other companion. To the engineer he said: "You know Superintendent Hayes, don't you, Bayliss?"

Shorty glared his resentment. Did he know the road's Superintendent of Transportation? If he had kept all the demerit slips that Hayes had passed out to him in years gone by, he'd have enough waste paper to give a substantial wad to the salvage campaign.

"We're inspecting the automatic blow-off system." Mr. Hayes spoke stiffly. "This is a very important train you have to haul today, Bayliss."

Mackie nodded. "Well, we have an engine that's just been overhauled, and an engineer who has a name for speed."

Hayes sniffed at this. Then he asked Mackie to explain the operation of the new blowoff system. Shorty started the dynamo and placed the toggle switch in the "on" position. Mackie gave the sales talk.

"Signal foam-meter lights give the engineman an accurate visual indication of the development of foam inside the boiler, and the automatic blowoff valve prevents the foam from reaching a dangerous point in the steam space."

The Transportation official replied, "I see," as if he understood what it was all about.

"In the past," Mr. Mackie continued, "the majority of engine failures was due to engine boilers foaming, but this device will eliminate that trouble, I hope." He motioned to Shorty to operate the electric test switch on the cover of the signal-light box. Shorty held the switch for thirty seconds and the yellow light flashed on. The automatic blowoff valve opened, followed by a roar of escaping steam.

"There you are, Hayes!" Mackie remarked. "It works perfectly. If there's a failure this trip it will be man failure, not engine failure."

The engineer smirked. He was an undersized man of about sixty, with weather-beaten features and penetrating blue eyes. There was an air of efficiency in the way he opened the bell-ringer valve, cracked the multiple throttle and backed his Northern-type engine onto the long string of oil tankers.

Superintendent Hayes, followed by the oil man, climbed down the gangway ladder and disappeared in the direction of the caboose. Mr. Mackie, after setting up the brakeman's folding seat into position, handed cigars to the engine crew.

"I'm riding the cab," he said affably. "This automatic blow-off valve is under test by the company and I want first-hand information on its performance."

Shorty took the proffered cigar. It was a good smoke, he decided, but if he didn't roll the oil train over the 187-mile division in record time, the Superintendent wouldn't be quite so matey. A few seconds later Shorty caught the car inspector's signal to "set 'em up." He made a fifteen-pound reduction of brake pipe pressure, lapped the brake valve and awaited the

signal to release air-brakes. Five minutes elapsed. Then a highball from the caboose told him to "take 'em away."

The engineer shoved his automatic brake-valve handle into full release position, left it there for a short period of time, and then, pulling it back to running position, he made the "kick-off." Bracing himself on the seatbox, he pulled the throttle open gradually. He was aware that slipping an engine, when lifting a heavy train, raised the devil with a light stoker fire and he wanted to give his fireman an even break.

Slowly the four pairs of seventy-three-inch drivers started to revolve. As the saturated steam began to superheat, the pistons moved faster, and the big engine settled into her stride. The precious cargo of oil was under way, rolling along the main toward Black Rock, 187 miles to the east.

PASSING Landuman, seven miles out, the robot went into action. Yellow light in the control box flashed on and the blowoff valve opened up. Fireman Watson was carrying his water too high in the boiler. The blowoff valve remained open until the water had dropped in the glass to a safe level. Then it automatically shut and the yellow light went out.

Superintendent Mackie was watching closely. He advised the fireman to cut down on the water pump and to keep consistent water level in the boiler. Then he turned to the engineer.

"You can step on her now, Bayliss. The automatic blowoff cock will take care of the high water."

The 6140 was forging ahead in fine style, the oil tanks rolling along in her wake. The Northern-type engine was running like a well-oiled sewing-machine. Not a click or pound marred the even rhythm of the humming driving wheels or the regular beat of the exhaust.

The oil train had scarcely cleared Wyoming station, when the yellow light flashed on again and the blowoff cock opened with a muffled roar. But it was not high water that had put the robot to work this time. The water in the boiler was foaming. Shorty tightened his grip on the throttle lever as if he intended to ease off, but Mr. Mackie stopped him.

"Keep after her!" he shouted across the cab. "The automatic will take care of foamy water."

That yellow light on the control box remained steady. The robot continued to discharge dirty water to the roadbed. Shorty motioned to his fireman to widen on the water-pump steam throttle; the water was going down in the glass. Mackie, swinging around on his seat, caught a perturbed look on the engineer's face. He crossed the cab and stood behind Shorty.

"Make her talk back to you, Bayliss," he advised. "There's no danger of burning the crown sheet, with the automatic blowoff valve. That valve will close as soon as the foamy water drops away from the long electrode."

Shorty remained tensed on his seatbox, a gauntleted hand gripping the throttle lever. He debated in his mind whether to ignore the official instructions and ease the throttle, or keep lacing her. After all, he reflected, he was in charge of the engine and was responsible for the boiler's safety.

As suddenly as it had opened, the automatic blowoff valve closed. The yellow light went out.

Shorty breathed easier. "I can't run Rathroy for water," he muttered, "lacing the engine this way, and that gadget sprinkling the roadbed like a street flusher. If my opinion counts, the old system was away ahead of this outfit."

The Superintendent leaned over the back of the engineer's seat. "We're not running Rathroy—not this trip. There's too much at stake."

Shorty nodded without turning his head. Goggled eyes watched the block signals, flashing green as he came into the circuits, pushing his engine to the limit. He wouldn't think of falling down with the oil train, but of all the boys who needed oil desperately for the "second

front"; and suddenly he was filled with a burning desire to get it to them as fast as he could.

"But Rathroy water," he murmured. "Well, unless the new gadget is all it's cracked up to be, we won't get anywhere with a tank of that foamy water."

He understood the official's motive in ordering the water stop made at Rathroy. But it would eliminate the costly delay of nearly an hour if they ran by Rathroy and made the water stop at Mundun. Rathroy water was nothing to write home about, but Mr. Mackie was sold on the automatic blowoff and was willing to take a chance with a tank full of foamy water.

Rumbling down the grade into Rathroy, Shorty watched his landmarks for the first brake application. Braking an oil train requires a technique different from that of braking highball freight, or passenger. The surge of oil in the loaded tanks must be allowed for, otherwise the engine may over run the water column.

All the Canadian Central men who ran out of Varnia were good at handling the air, but Shorty Bayliss was an artist. He worked steam to within a short distance of the water tank; then, with a final brake application, he spotted the big tender right in line with the column. Harry pulled down the spout, and Rathroy water poured into the manhole.

Engineer and official clambered down the gangway ladder and inspected the running gear. The Varnia roundhouse men had done their work well. Driving boxes and bushings were cool, while pistons and valve spindles were covered with a thin film of valve oil, showing that the engine was lubricating perfectly.

"Well," Mackie remarked, "we appear to have licked the problem of foaming boilers. If we can keep up the gait we ought to satisfy that oil representative."

"Yeh, ought to," returned the engineer. "But there's no telling what may happen when we get the boiler full of Rathroy water."

Mr. Mackie flicked the ash from his cigar. "Don't worry about the water. Just keep the engine digging in, and watch the automatic blowoff do its stuff."

The fireman threw the spout up, as water overflowed the manhole and spilled down the sides of the round tender. Shorty climbed back in the cab. After whistling in the flagman, he waited for a sign from the tail-end. In due time the flagman came trotting in, bounded up the caboose steps, and tossed a highball with his red flag. The engineer whistled off! Then he put the 6140 in motion for the stiff climb out of Rathroy.

SHORTY was giving the 6140 all she could take, when the pops opened suddenly with a crash. The red indicator light in the control box flashed. Rathroy water was getting up in the steam space. The boiler was priming. Muttering imprecations, Shorty yanked savagely on the hand lever of the blowoff cock and pulled it wide open. Suspicion of failure was heavy on his features; but, to the engineer's surprise, both lights went out when he opened the manual blowoff, indicating that the danger of priming was passed.

The fireman, Harry Watson, was now eyeing the steam pressure like a terrier watching a rathole, and the pops remained closed. The yellow indicator light began to flash more often and the automatic blowoff to operate, but the red light remained off.

Gaining confidence, now that he was becoming accustomed to the automatic blowoff, Shorty pushed the oil train right along. Wheel flanges protesting the pace, they rounded the curve into Koboka, on a green block, and headed up the hill. A brisk wind came out of the north as the oil train braved the hill. But rail and visibility were good. Gradually the speed reduced until it was about half on the grade west of Hyde Park. The automatic blowoff was doing its stuff, and they rumbled past the station at a fair clip.

Rolling down the five-mile grade, Shorty checked the speed once; then he let her ramble. He saw a green block on the curve, indicating that Mundun yards were

clear. They wheeled through the busy terminal at reduced speed. The switch tender at the Mundun East wildly highballed the oil train through the crossovers. Shorty glanced back along the train and caught the high sign from the rear.

"So far, so good," he exulted.

Then opening the dust doors of the tender, he tested the water taps. Water flowed at the tap, showing he had a half tank.

"We ought to make Woodstock for water without much trouble," he remarked to Superintendent Mackie.

The brass collar nodded in silence. Then, tucking himself in again behind the brake valve, Shorty notched the throttle wide open. The big Northern-type monster responded nobly, swinging into her stride once more. But one mile out of Ingersoll, the unexpected happened—the automatic stoker quit cold!

With a curse, Harry slid off his seatbox. The dust doors flew open with a vicious rattle as he grabbed the scoop and began heaving coal into the man-sized firebox. Meanwhile, the Superintendent tugged at the reversing mechanism, but in vain. A chunk of slag was holding the conveyor-worm fast.

Far away Woodstock seemed, yet it was only a few miles. Shorty glanced uneasily at the steam gage pointer, hovering around the 250 mark. Even as he watched, the needle started dropping.

He eased the throttle as the speed dropped perceptibly with the falling steam pressure. It appeared that they were beaten in this mad race to wheel oil to the coast in time for use in the invasion of Hitler's Europe. Shorty was about to shut off steam when, with a grinding of gears, the stoker booster broke up the slag and the conveyor started to turn once more.

"Glory, hallelujah!" chanted Harry.

He wiped sweat from his eyes and adjusted the jet pressure. Crushed coal was now spreading itself evenly over the firebed; steam pressure was rising. Before very long, they had drifted up to the water plug at Woodstock station.

Twilight was deepening into night when the petroleum train, at long last, steamed into its terminal, after an eastward run that would go down in history. Superintendent Mackie climbed off his seat.

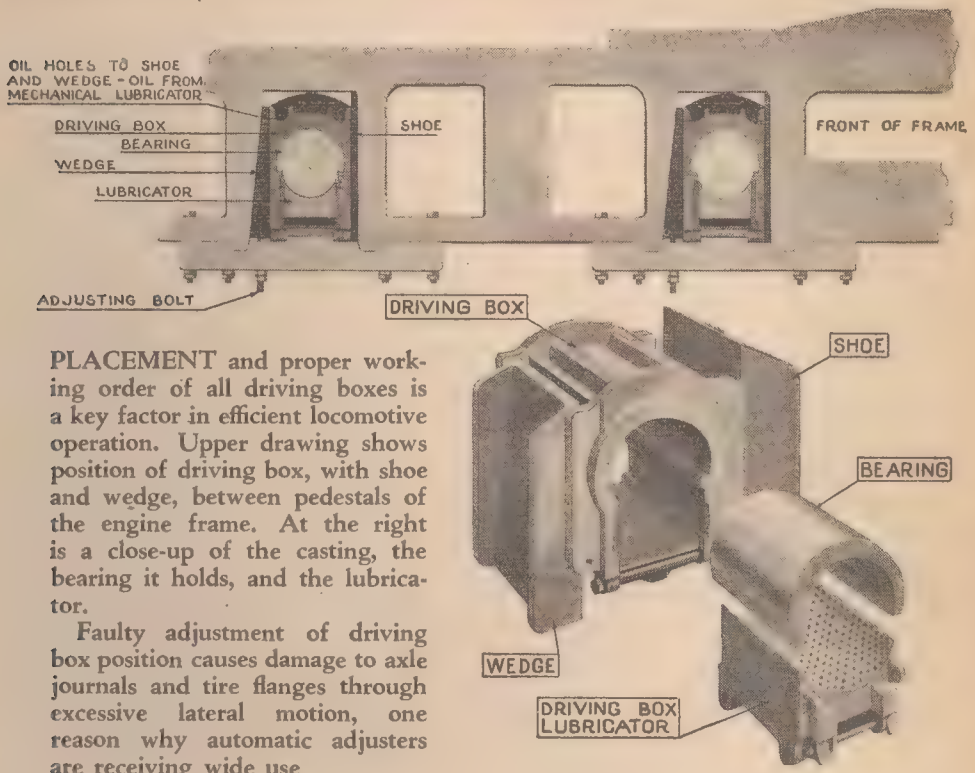
"That's one for the book," he said. "You fellows turned in a great performance. I'm proud, too, for another reason. My son is piloting a bomber over there. I knew the Canadian Central would never let him down."

"And while you're passing out credit," Shorty advised with a grin, "don't forget the new automatic blowoff system."

Photo by W. R. Hicks, 25 Hawthorne Ave., Glen Ridge, N. J.

TAKING WATER. This engine and all other Cumberland & Pennsylvania property will be taken over by the Western Maryland if the ICC approves, reports Robert H. Barth, Box 572, Mount Savage, Md.

Light of the Lantern



PLACEMENT and proper working order of all driving boxes is a key factor in efficient locomotive operation. Upper drawing shows position of driving box, with shoe and wedge, between pedestals of the engine frame. At the right is a close-up of the casting, the bearing it holds, and the lubricator.

Faulty adjustment of driving box position causes damage to axle journals and tire flanges through excessive lateral motion, one reason why automatic adjusters are receiving wide use

Wheels and Driving Boxes

WHEN a heavy freight or fast passenger express pulls to a stop at its terminal, the engineer climbs down from the cab with his trip report in his hand. The inspector wants to know about the run, and though the old girl will get a thorough check-up in the shop, a first-hand account from the runner will let the maintenance men know just where to begin. If the report leads off with the brief comment, "Pounding badly," the shop crew will lose no time in getting at the source of trouble.

For pounding indicates that something is out of condition in one of the most vital spots of any locomotive; it may have a number of different causes, but usually pounding is a sure sign of improper adjustment somewhere in the running gear. Often it indicates that a driving box is out of position, or that slack has developed between this part and its shoe and wedge, which fit inside the frame pedestals. If this mechanism is not operating properly, wheel and axle alignment will be affected, causing serious damage to tire flanges.

KEEPING engine wheels in proper tram has always been a job of prime importance for motive power maintenance men, and with the development of heavier loco-

motives, high-speed trains, and extra-long freights, their task is more imperative—and exacting—than ever. Tread surfaces, height and shape of flanges, placement and operation of the driving boxes and bearings—all are essentials to be checked against the highest standards of efficiency and economy.

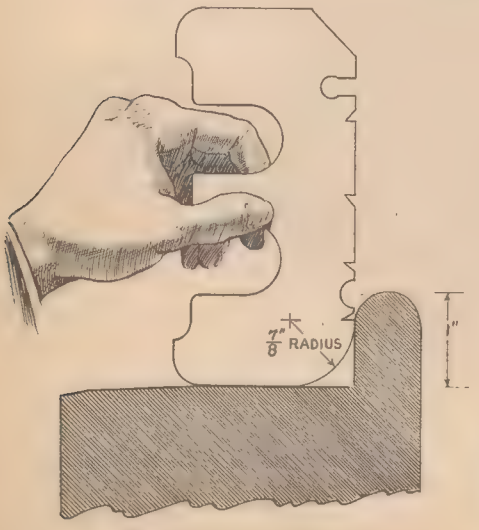
In ordinary operating conditions between two terminals, the wear on locomotive wheels would naturally be uniform, with the leading truck discs getting slightly more of a beating if no cushioning device is used. Regardless of the number of curves, these are taken by the wheels on one side when the engine is headed in one direction and met by those on the other side as the run is made back over the route. During regular inspections, worn or slightly damaged tires are promptly detected and repaired long before they fail to meet federal standards.

Height, thickness, and shape of tire flanges are determined with formal exactness by ICC rulings. Flanges on driving or trailing wheels, measured from the tread, "shall be one inch for locomotives used in road service." An exception is made, of course, for units whose design does not permit this height on all driving wheels; in this case the minimum on one pair may be five eighths of an inch. Thickness, gaged three-eighths of an inch above the tread, must not be less than fifteen sixteenths, and no wheel with a flange having a vertical surface one inch or more from the tread can be continued in service.

Besides the obvious safety factors that require flanges in good condition, there are other reasons for correcting defects. If a flange is worn thin, lateral play of the wheels is increased. This causes additional wear on the rails, and on the locomotive frame as well. A sharp edge has a tendency to split leading-point switches, something for roads with a fair amount of single trackage to consider.

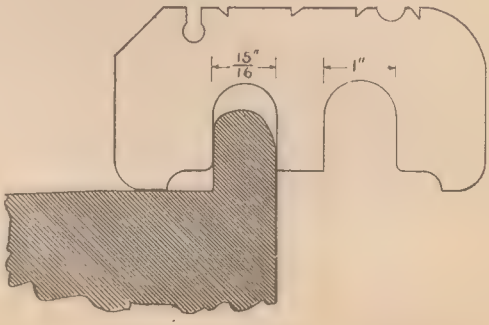
For accurate measurement of flanges, railroad men use a standard type of gage which indicates quickly any deviation in contour and height. The gage is in constant use around the shops and engine houses, since officials generally require repairs to be made long before the wheel is likely to fall below ICC standards. This practice is a matter of economy, since if a tire is allowed to run until it "takes the gage", much good service metal must be removed from the tread in turning the tire back to its proper contour. Federal rulings state that the diameters of

WHEEL DEFECT GAGE USED TO TEST DRIVING WHEEL FLANGES



DRIVING WHEEL TIRE AT CONDEMNING LIMIT BECAUSE OF A VERTICAL FLANGE

TIRE FLANGES must meet rigid specifications set by the ICC. For this reason, motive power inspectors use a standardized type of gage, by which they can quickly determine vertical or thin flanges



FLANGE WORN THIN TO CONDEMNING LIMITS

driving wheels in the same base shall not vary more than three thirty-seconds of an inch, and if one wheel has its diameter substantially reduced, the remainder will have to be turned, with a resultant waste of much good steel.

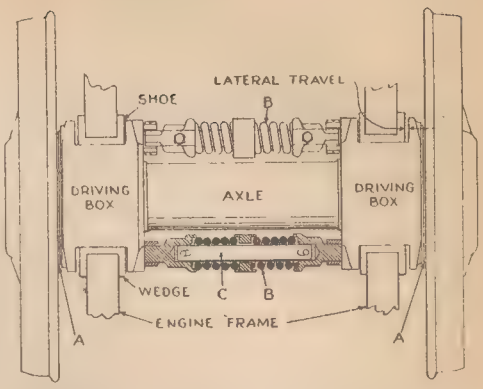
BUT ANY railroad shopman knows that flange repairs aren't always needed for all locomotive wheels at once. It's common enough to see one flange wear sharper than the others and have to be replaced long before the rest show similar signs of heavy use. One frequent reason for this is faulty placement or operation of a driving box.

This part is simply a steel casting machined to hold a crown brass fitted firmly in its center. The brass is bored to make a bearing on the driving axle journal. The box itself fits between the pedestals of the locomotive frame, held in position by a shoe and wedge—two strips of metal, usually brass, which fit along the sides of the pedestals. It is this box and the bearing it holds which transfer the weight of boiler, cylinders, and main frame to the journals of the driving axles. The driving boxes serve to keep the locomotive in tram, which means keeping the distances between axle centers equal and maintaining the axles at right angles to the main frame.

The shoe and wedge play an important part in keeping the driving box and the axles in their proper position. As the driving box works up and down, because of countless irregularities in the track, it is prevented from wearing against the pedestals by these strips of metal. The shoe is straight, and is set at the front of the box, with the wedge, tapered on the pedestal side, at the rear. This latter part is adjustable by means of a manually operated bolt set through the binder, or by an automatic spring arrangement, a device usually found on heavier power.

When a locomotive is assembled at the plant, engineers are careful to lay out the shoes and wedges with great accuracy, commonly by the fish-tram method. The center is located at the rear and middle of the cylinders and lined back to the main pedestals. A straight edge placed across these marks will be at right angles to the frame. With this as a basis, the other centers between the pedestals can be found. After this point has been located on each driving box, the wheels can be kept in alignment by making sure

PLAN OF ALCO
LATERAL MOTION DEVICE



LATERAL MOTION of driving boxes, which occurs when the locomotive takes a curve, is equalized by this Alco spring device. As one box moves laterally, the spring is compressed to move the opposite box. As the engine enters a tangent track, the spring expands and returns the boxes to their proper position. This mechanism absorbs heavy lateral blows and protects the driving wheel flanges and rails from excessive wear

that this mark is in a vertical line with the one on the frame.

Two things can happen if one pair of wheels is not at right angles to the main frame, or if all the wheels on one side are slightly ahead or behind those on the other. The driving boxes may run hot, because the journals will be at a diagonal position on the brasses causing binding at the corners. Or—and here's the effect improperly placed driving boxes can have on the tires—the flange of the wheel ahead or behind will have a tendency to travel up over the rail. This type of wear can create a sharp flange in a very short time.

When slack develops between the driving box and its shoe and wedge, causing pounding, the latter part must be set up to take care of the slack. If the locomotive has been in the house for several hours after completing a run, repairmen will have to make allowances for the fact that the driving box is cold. Steel expands when it becomes heated, and in setting up the wedge, at least one sixty-fourth of an inch clearance must be left to take care of this expansion when the engine is in use.

Photo from James F. Byrne, East McKeesport, Pa.

FIRST MALLET to run on Canadian lines was the CPR's No. 1950. Unique box-like superheater was replaced by a Vaughn-Horsey unit, housed within the smokebox front

Another precaution must be observed when the wedges on all the wheels are set up. This adjustment pushes the axles slightly forward, and clearance must be left between the pistons and cylinder heads. No damage is done when the axles go forward, since the entire set of wheels with their rods move up on the frames. But care must be taken that the main rod does not force the piston too close to the front head. Most cylinders have in excess of half an inch total clearance.

Since this careful placement of the wedges supporting driving boxes is extremely important, many roads have abandoned the use of manually adjustable parts, and now use the Franklin automatic wedge. Consisting of a floating liner between the wedge and the box and a spring of proper tension placed at the base of the wedge bolt beneath the binder, this device keeps the wedge in place and needs little attention except regular lubrication.

Photo from Richard Prince, 1141 Larchmont, Norfolk, Va.

NUMBER 1209, one of the Norfolk & Western's high-speed articulateds, hauls a long drag across the Elizabeth River, near the road's tidewater terminal

How Well Do You Know the Book?

PETER JOSSERAND, dispatcher for the Western Pacific at Sacramento, Calif., sends in another train order problem, based on an actual situation that occurred in his territory recently.

Mr. Josserand's interpretation of operating rules, as applied to this situation, appears on page 78 of this issue.

WHEN Dispatcher Jones came on duty at 4:00 p.m., he found, among other orders issued to an extra train called at A, the following:

Order No. 81: Eng 2133 run extra A to H and has right over Extra 798 East A to D, take siding not leave D unless Extra 798 East has arrived wait at
B until five one 501 PM
C until five ten 510 PM
for Extra 798 East.

Before clearing Extra 2133 West at A, Jones learned from the operator at D that Extra 798 East had arrived at D at 3:50 p.m., and was then doing switching on an obscure track, the Mill Spur. This job usually required an hour or more, and it was doubtful that they would finish in time to make C for Extra 2133 West.

The line here is 1 per cent grade descending westward, with a curve toward the east end of the siding so that a train approaching from the east can be seen only a short distance. The Mill Spur, on which the local was working, drops off from the main track, half-way between siding switches, into the flat where the mill is located. Usually the local was pulling so many cars out of the hole that they could only get out by making a run for the grade in order to get them on the main stem.

Because he saw that the local might not be where Extra 2133 West could identify it at D, the dispatcher put down

Order No. 91: Extra 798 East has arrived at D on Order No. 81.

Meanwhile Conductor Filbert on the local finished his switching at the mill. When he had sent a brakeman to line up the main track switch, he started a wild run up the grade. Just as his train got out onto the main, around the curve popped Extra 3133 West, coming down with considerable speed; amid the wailing of whistles and brakes screeching, a collision was narrowly avoided.

Conductor Filbert was plain mad. "What the hell do you guys mean, busting down here like that?" he demanded of Engineer Stevens on the 2133.

"Our orders give us the main!" the hogger yelled back. "Who do you think you are, popping out of the the flat in the face of a tonnage downhill train, and no flag protection?"

"Who said I needed it?" Filbert shouted. "My orders entitle me to the main track between switches here—you've got the same orders and they tell you to take siding!"

"No such damned thing!" interrupted Tom Horner, skipper on the 2133, who jogged up just in time to hear Filbert's last remark. "We had orders to take siding, all right, and not to leave unless you'd arrived but—" he said, fishing in his coat pocket for the flimsies—"Order No. 91 says here that you *have* arrived!"

"Any fool can see that," the conductor of the local retorted, "but your order doesn't entitle you to tear down and hit me, just because you know I'm here. You've still got to take siding. The main between switches belongs to me!"

Horner waved the papers in the air. "Then why in hell did the DS give me No. 91? Go on—get that engine out of my way. I've got a meet with a passenger at F, and I don't want to lay them out. We'll thresh this out later."

Who do you think was responsible for this near-collision? Was Extra 798 East entitled to the use of the main track between switches at D? Did Order No. 91 relieve Extra 2133 West from taking siding at D? Was Dispatcher Jones within his rights when he issued Order No. 91?

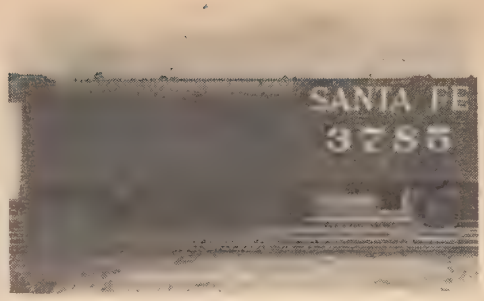
Information Booth

EACH month the Lantern Department includes, in addition to a technical article on some ramification of railroading, answers to rail questions of general interest, submitted by our readers. We do not send replies by mail.

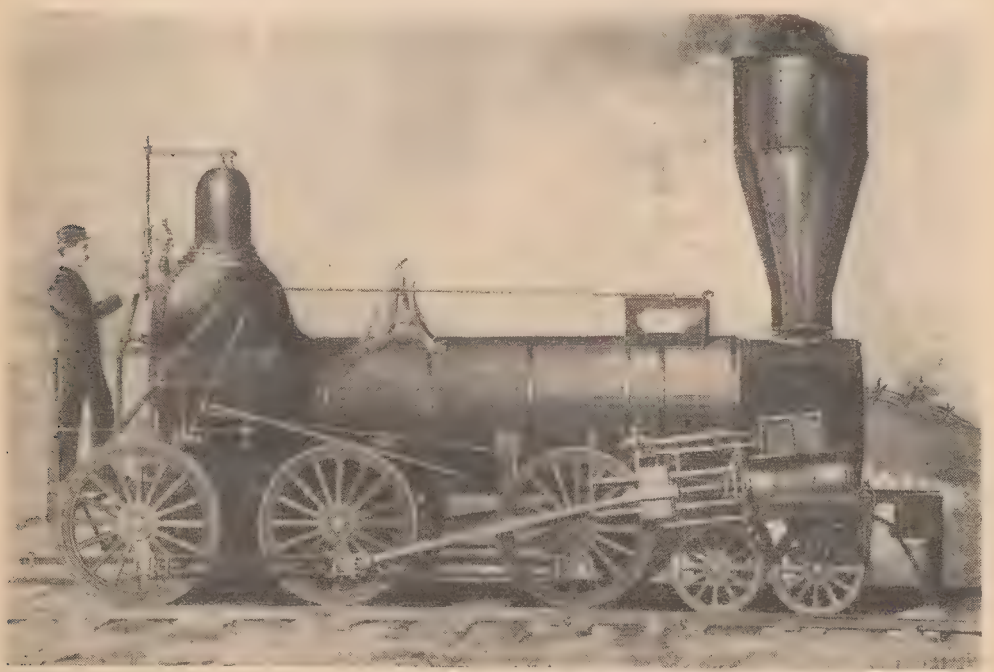
1

ARE there several types of locomotives included in the Santa Fe's 3700 Class? If so, please list them, with numbers and builder's date.

Santa Fe's classification system is based on number series only, without the alphabetical designation of groups of locomotives. Three different sets are numbered in the 3700s, beginning with the Mountain types (3700-3750) built by Baldwin between 1918 and 1924. A second series (3751-64) were 4-8-4s, with 73-inch driving wheels and a tractive effort of 68,000 pounds; these were outshopped by Baldwin in 1927-29. The third group comprises the Santa Fe's most famous Northern types, probably the most powerful of their kind, having 80-inch drivers, boiler pressure at 310 pounds, and a tractive effort of 66,000 pounds. Nos. 3765-75 were built in 1937, with an additional ten engines (3776-85) going on the road in 1941.



ONE OF the Santa Fe's fleet of powerful more 4-8-4s were



From Milton L. Bernstein, chairman, Railroadians' museum committee

LIGHT-WEIGHT reciprocating parts are a modern development, but William Norris, Philadelphia builder, was applying a type of light-weight rod to his *Chesapeake* as early as 1847

Northern types, the 3785 was outshopped by Baldwin in 1941 (see Item 1). Ten ordered for early 1944 delivery

2

IS THE Illinois Central streamliner, Green Diamond, still in operation?

Number 51 southbound, 50 heading north, the IC's Diesel-electric *Green Diamond* makes daily runs between Chicago and St. Louis on a schedule of 5 hours, 10 minutes for the 294-mile trip. This fixed-consist train leaves Central Station at 5 p.m., and St. Louis's Union Terminal at 8.55 a.m.

3

WHEN was the Poughkeepsie Bridge built, and was it to be a part of the proposed New England route of the Philadelphia & Reading, back in the nineties?

The railroad bridge across the Hudson River at Poughkeepsie, N. Y., was opened for traffic in December, 1888, after two years of construction. Plans for the bridge had been proposed twenty years earlier, as a connection with the old Poughkeepsie & Eastern, but interest waned, and it was Philadelphia capital that finally built the structure, at about the time that Philadelphia & Reading officials were devising plans to acquire rail lines into New England.

The Poughkeepsie Bridge Co., owners of the structure, was one of the properties leased by the Central New England & Western, a "paper" company soon bought out by the P&R, who recognized the bridge's value as a gateway into New England. After a series of receiverships the Reading's proposed northeastern routes were organized into the Central New England Railway (1899), but financial control of this company was soon acquired by the New York, New Haven & Hartford.

4

HAS the installation of centralized traffic control increased during the war?

Although W.P.B. restrictions have greatly curtailed all railroad construction, many lines projecting such improvements have been permitted to complete or continue work on them, since centralized traffic control has aided greatly in speeding up train movements especially on vital single track routes with a heavy volume of wartime traffic.

Almost 2,000 miles of trackage were equipped with C.T.C. during 1942-43, and construction has been authorized for approximately 800 miles to be completed this year. This three-year total compares interestingly with the amount of trackage previously equipped: from the introduction of C.T.C. in 1927 to the end of 1941, 2,701 miles had been converted for this type of signaling.

An outstanding example of the wartime value of centralized traffic control is the Union Pacific's 171-mile stretch between Las Vegas, Nev., and Yermo, Calif., where installation was completed last June. In general, freight trains are now making this run in either direction in less than ten hours, as compared with thirteen to sixteen required a year ago.

5

ARE many other woods beside oak used for railroad ties?

Oak accounts for approximately 55 per cent of all ties. But various other woods are used, depending upon locality. Approximate percentages are: pine, 22; cedar, 7; hemlock and tamarack, 4; cypress 3; redwood, 2; all others, 7. Creosoting has increased the life of ties; formerly a road could expect ties to last anywhere from two to twelve years, and frequently cost of these replacements was greater than the sum required for new rail. With the creosoting process, however, ties may last from eight to twenty years.

Photo by Addison Lake, 2719 Granville St., Vancouver, B. C.

TWO ENGINES pull this Canadian Pacific string of varnish near Spiral Tunnels in the Rockies of British Columbia

6

HOW does the Lackawanna's 1600 Class compare with the new 4-8-4s of the Delaware & Hudson and the Missouri Pacific?

The Lackawanna's 4-8-4s have 70-inch driving wheels, and as a result their estimated tractive effort (71,000 pounds) is somewhat higher than that of the D&H and the MoPac machines. All three are roller-bearing equipped throughout. The DL&W 1600 specifications: cylinders, 28x32 inches; drivers, 70 inches; pressure, 235 pounds; engine weight, 418,000 pounds; dates, 1929 and 1932. (Details on the other two engines will be found in the November and December, 1943, issues.)

Another locomotive of the 4-8-4 type which rates comparison with these giants is the Rio Grande's M-68 Class, whose patterns and drawings were widely used in the construction of the Missouri Pacific 2200s.

7

WHAT is the longest piece of continuous track so far laid?

Burlington construction engineers have recently completed the laying of 17,000 feet of all-welded track in the 6-mile Moffat Tunnel, just west of Denver. The new rail, replacing 112-pound, plate-joined steel, was de-

Photo by Frank Clodfelter, Asheville, N. C.

FILLING THE TANK of a 4500 series Mikado on the Southern: Fireman T. A. Steele pulls the spout into position at Melrose, N. C., on the Asheville Division

livered to the east portal of the tunnel in 40-foot lengths. There they were welded together to make pieces of 1,000 feet each. These sections were slid into the tunnel on ties laid across the tracks still in place. Inside, the new rail was put in place and then welded together. The project is not yet complete, for Burlington officials plan to replace the remaining plate-joined rails with the newer, welded type as soon as work can be resumed.

8

WHAT is the purpose of side rods connecting the wheels of tenders? I noticed them recently on some of the Boston & Maine's equipment; are they used generally?

These connecting rods are part of a tender truck booster design. They are manufactured by the Bethlehem Steel Co., and a number of roads besides the B&M applied them to locomotive tenders. Such mechanisms have proven relatively unsuccessful: most carriers removed them from road equipment, although tenders of some switching engines still have them.

9

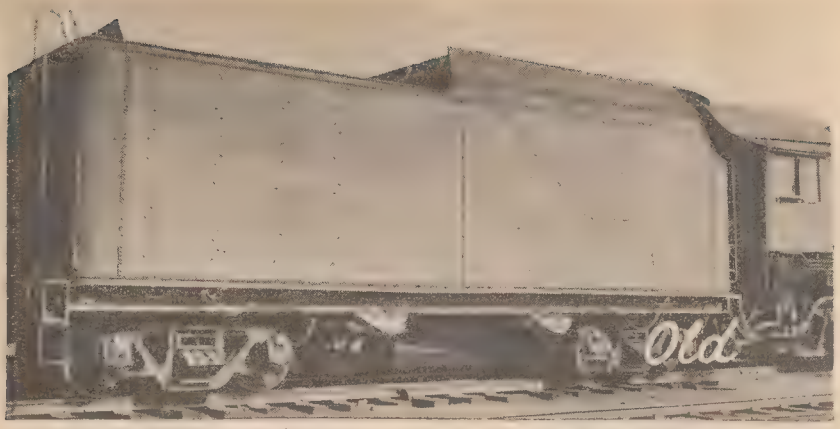
LIST specifications of the Southern's Santa Fe type freight engines, now used on the Knoxville Division.

Numbers	5005-79
Cylinders	28x32
Drivers	57
Pressure	200
Eng. Wt.	370,600-378,000
Tractive Effort	73,600
Builder and date	Baldwin, 1917 Richmond, 1918

10

WERE any Mallet locomotives built for the government during the first World War?

Yes; 30 light Mallets (2-6-6-2) were constructed for the United States Railroad



PRESENT STYLE of lettering, eight inches high and closely spaced, will soon be changed on all Baltimore & Ohio equipment

Administration, as well as 95 of the heavier type (2-8-8-2).

11

WHAT information is available on the new 700 series that the Wabash is putting into service?

Two engines of the road's 2600 Mikados, originally three-cylindered engines, have now been converted into 4-6-4s at the Wabash shops, with more to come. Modernized with stream-styling and equipped with roller bearings throughout, these new Hudsons have 26 by 28-inch cylinders, 80-inch drivers, and 220 pounds' boiler pressure. Tractive effort is rated at 44,244 pounds, with engine weight at 374,680. Sixteen tons of coal and 12,000 gallons of water make up the tender load.

12

DID the Chicago Great Western ever operate articulated engines? No mention is made of this type on the CGW in the Mallet article (March issue), but I believe this road had some articulateds twenty or thirty years ago.

The Chicago Great Western did have a number of light Mallets during the early years of that type. Ten articulated compounds were ordered from the Baldwin Locomotive Works in 1909, and given road numbers from 600 to 609. These engines had cylinders 23 and 35 inches by 32, driving wheels of 57 inches, and a boiler pressure of 205 pounds. Weighing 353,100 pounds, these 2-6-6-2s had a tractive effort of 81,175.

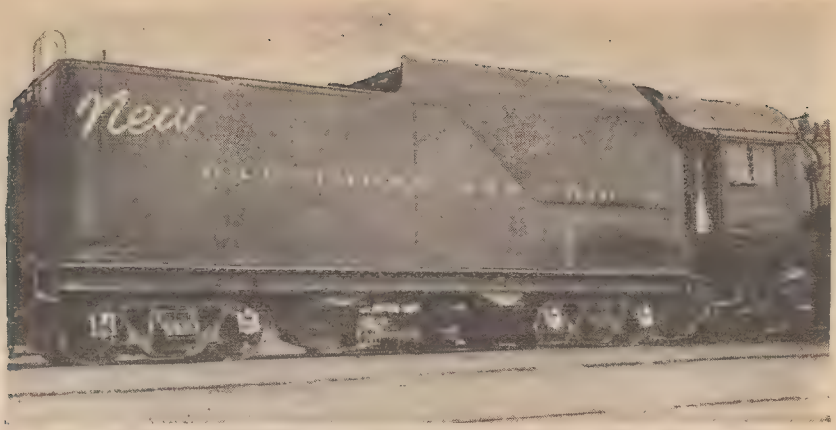
A year later, at its own shops, CGW rebuilt three Prairie types into light Mallets, numbering them 650-652. Cylinder dimensions were 21 and 35 by 32 inches, with 63-inch drivers, and 200 pounds' boiler pressure. With an engine weight of 315,000, tractive effort was rated at 52,100 pounds.

All of these articulated compounds have been scrapped. An old photo, showing No. 652 at the Dyersville, Iowa, depot twenty-five years ago, appeared on page 63 of our October '43 issue.

13

HOW many freight cars were built for U.S. railroads during 1943, and will there be an increase in this type of construction authorized for this year?

Last year a total of 31,591 freight cars were built for railroad service in this country, exclusive of cars delivered to the various U.S. Government departments.



NEAT, WELL SPACED five-inch letters are now being stenciled on B&O cabs and tenders as locomotives go through shops for repainting

In December the War Production Board announced plans for building 50,000 freight cars in 1944, sixty percent of which will be of all-steel construction. Approximately four fifths of these are already authorized and on order.

14

WHICH state originates the largest amount of freight shipped by rail, considered on the basis of tonnage?

More tons of freight of all kinds are shipped out of Pennsylvania, with West Virginia second and Illinois third. Large coal shipments from the Appalachian region help to account for the two leaders.

15

WHAT road operated the first train to be completely equipped throughout with roller bearings, and when was this run made?

On December 23, 1930, the *Merchants Limited,* the New Haven's Shore Line train between Boston and New York, made its run as the first train to be completely equipped with this type of bearing. The *Merchants* was inaugurated for fast passenger service between New York and New England in 1903, and was one of the first to have two dining cars regularly assigned to it. Today it is the only limited, extra-fare train on the NH schedule.

Photo from R. J. Foster, Box 375, E. St. Louis, Ill.

FIRST of a series of Hudson types now being converted from 2-8-2s by the Wabash Railroad at the company shops (see Item 11)

CORRECTION: Of the Frisco's new 4500 Class, engines 4500-4502 are being used in passenger service, and not 4512-14 as stated in the January issue. These are oil-burners, the others of this class being designed for coal.

Extra 2133's Crew at Fault

PETER JOSSERAND supplies this solution for his train order problem printed on page 71.

There are still a number of roads using this form of order, but because this kind of confusion has arisen frequently, some lines have changed their rules to plug the loopholes.

The dispatcher was within his rights in

The King Is Dead—Long Live the King!

Yesterday the *Yellowstone* type ruled the rails: today it is the Union Pacific's *Big Boy*: and tomorrow—who can tell?

But whatever that giant's method of steaming, power transmission and wheel arrangement, we're certain of one thing: she'll be an articulated engine

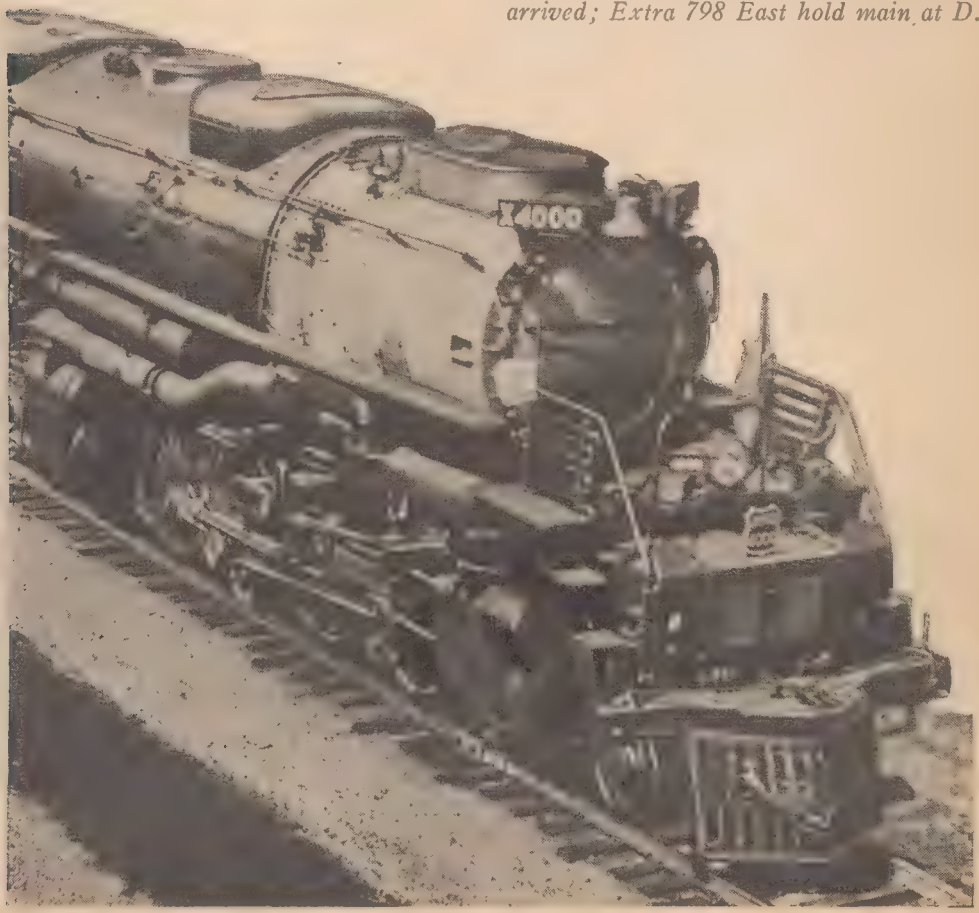
issuing *Order No. 91,* and about the worst that can be laid at his door is the charge of poor judgment in putting down an order which might be misunderstood.

The crew of Extra 2133 was at fault in coming down the main track, for *Order No. 91* did not relieve them of their duty to take siding at D. What such an order actually means is something like this:

If Extra East has not been met between A and D, they can be assumed to have already arrived at D; therefore Extra 2133 West take siding at D and not leave unless Extra 798 East has arrived. The order stating that the local had reached D in no way cancelled the portion of the previous one which directed 2133 to take siding at that point. It said only that Extra 798 East had arrived and that after taking siding, Extra 2133 West might proceed from D, even if the local was not in sight (because of working on a track obscured from view.)

The rulebook on some roads provides, in a case of this kind, that the Extra West take the siding, without specific orders from the dispatcher. Other roads require the DS not only to give Extra 2133 West right over Extra 798 East to D, but also to confer right on 798 over 2133 to D, from the point where they were last reported; and the order shall also state which extra is to hold the main at D.

Still other companies attempt to avoid confusion by directing that the order be issued in this form: *Eng 2133 run extra A to D and has right over Extra 798 East A to D and wait at B until five one 501 PM, at C until five ten 510 PM and will not leave D unless Extra 798 East has arrived; Extra 798 East hold main at D.*



SO YOU THOUGHT the New York Central's *Mercury* had the first illuminated running gear! Or maybe it was just wood ashes falling from the grates that silhouetted the pilot of the *Midnight Express* as she made this Georgia flag-stop in the early Fifties

New Publications

For the Technical Library

DESPITE the important part being played by the Diesel locomotive in today's transportation picture, technical material on this subject has, for the most part, been limited to manufacturer's brochures and short items slipped into inconspicuous corners of books devoted to Diesel engines in general, or those laying special emphasis on marine and automatic installations.

A real purpose, then, will be served by a highly comprehensive volume entitled *Diesel Locomotives: Mechanical Equipment,* compiled and written by retired Lackawanna engineer John Draney, who conducts the Diesel question and answer department in the Brotherhood of Firemen and Enginemen's Magazine.

Draney's approach to the subject is strictly mechanical and save for a very brief preface, there is no concession to the reader who is not already familiar with the elementary principle of Diesel operation. Matter of factly, he plunges into the characteristics of engine cycles and, step by step, through chapters on combustion, fuel injection, lubrication, cooling, governors, supercharging, and air filtration, presents the whys and wherefores of modern design. Special sections devoted to the products of outstanding manufacturers of Diesel engines and railway equipment, together with operating and maintenance advice, round out four hundred and seventy-two pages of informational material which maintainers, enginemen and motive power officials in this field will want to have available at all times.

Diesel Locomotives: Mechanical Equipment, liberally illustrated with photographs, diagrams and plans, sells at $4. It is published by the American Mechanical Society, Drexel Ave., at 58th St., Chicago, Ill. A companion book—*Diesel Locomotives: Electrical Equipment,* is now being compiled for near-future publication.

Post-war Oil Traffic

"WILL the railroads, in the post-war period, be able to handle well-organized large volume petroleum movements at low cost? Will they make a determined effort to hold their petroleum traffic after the war by reducing rates to a point where they can compete with other forms of oil transportation?"

These questions are asked by P. Harvey Middleton in a new 60-page booklet, *Oil Industry and Transportation, Pre-war and Post-war,* published (at 50 cents a copy) by Railway Business Ass'n, 38 S. Dearborn St., Chicago 3, of which the author is executive vice president. Middleton answers his two questions by predict-

ing the railroads will continue to carry "a substantial proportion" of petroleum and its products.

The brochure includes a history of oil transportation, much of which was covered in Freeman H. Hubbard's article, *900,000 Barrels a Day,* in the July '43 *Railroad Magazine;* but Middleton goes more into economics. He quotes a Standard Oil official as saying that the railroads before the war lost most of their petroleum traffic because of their rigidity in rate and cost accounting. The same official "was of the opinion that the railroads had not considered the cost of losing the business as well as figuring the cost of handling it in accordance with typical cost accounting calculations 'which are heavily burdened with fixed charges'; that more attention should be given to speeding up the turn-around by time study of every aspect of loading, moving and unloading, and consideration should be given also to increasing the size of the container, as a means of lowering costs."

Middleton is the author of four books: *Railways of Thirty Nations, Railways and the Equipment and Supply Industry, Railways and Public Opinion—Eleven Decades,* and *Railways and Organized Labor,* as well as another booklet *Transportation—Pre-war and Post-war.*

New Railroad Map

COLORADO RAILROADS, the second in the series of maps prepared by the editors of *Trains* Magazine, is a large (24x32"), four-color, handsomely lettered guide to the rail routes, past and present, in one of the most important railroad states in the country. The routes shown include abandonments, electric lines, and street railways. In addition, fifteen smaller maps drawn to various scales indicate parts of the state in greater detail. Linn H. Westcott, *Trains'* Art Editor, has done the cartography for this worthy successor to the magazine's earlier map of Pennsylvania railroads. An index printed on the back includes a brief history of each railroad indicated on the map. This map is printed and distributed by the Kalmbach Publishing Co., 1027 N. 7th St., Milwaukee 3, Wisconsin: $1 for the map enclosed in a heavy envelope, or $1.50 for an unfolded copy, suitable for framing, with index printed on a separate piece of paper.

Model Railroad Projects

WHETHER it's a New York Central Mohawk, a Pennsy N6B caboose, a Connecticut Company city streetcar or just a concrete milepost you're planning to reproduce in miniature as soon as you can get back on an eight-hour work day, you'll find the kind of plans you're looking for in the 1944 edition of the *Model Railroader Cyclopedia* just off the press. A far cry from the first little publication of 1936, the new, fifth edition contains one hundred and eighty-four conventional pages and twenty-seven fold-over plates, packed with photographs, and detailed diagrams reproduced in one-quarter- or one-eighth-inch to the foot scale, wherever possible. For the benefit of inexperienced modellers, there are instructions for building all basic types of equipment.

Priced at $2.50 with paper cover, or $3, cloth-bound, the *Model Railroader Cyclopedia* is printed and distributed by the Kalmbach Publishing Co., Milwaukee 3, Wis.

Trains, Vol. 3

THIS sturdily bound volume contains recent issues of *Trains* Magazine, November, 1942, through October, 1943. The binding is constructed to permit opening the book flat at any desired page. Bound in red with gold stamping, the book is put out at $4 by Kalmbach Publishing Company.

O-GAGE MODEL of a Reading P-7sb Atlantic type, built by John P. Scharle, in the New York Society of Model Engineers' shop

Locomotive of the Month:

Southern Pacific GS-6

AMONG the largest purchases of wartime motive power is the Espee, which last year spent more than $14,000,000 for thirty Articulated Consolidations, an equal number of Diesel-electric switchers, and ten *Daylight* engines. With another twenty A-Cs ordered in 1943, the tally of locomotives bought by or under construction for the road since '39 now stands at two hundred and seventy-five machines.

More than any other one type, the new 4-8-4 (Class GS-6) reflects the crisis which brought about its construction. For while it is fitted with the distinctive *Daylight* design of smoke lifter, all decorative shrouding has been omitted. Gone, too, are the Mars headlight, housed in its special smokebox door, and the vivid red and orange belting along boiler sides and tender.

Like all previous 4-8-4s, with the exception of the GS-1 group, units of the 4460-69 series bear the diamond-shaped builder's plate of the Lima Locomotive Works. With an eye to dual-service performance, the South-

ern Pacific has returned to the use of 73½-inch driving wheels, as in the case of the GS-2s, while at the same time retaining the greater weight of later sub-classes having 80-inch drivers. This gives the GS-6 the highest tractive force of any *Daylight* now in operation: 64,200 pounds, plus 11,300 pounds' booster effort.

Primarily intended for service on Oakland-Portland runs, these engines are suited to operation on all main line trackage where oil is used for fuel. In this regard, it is interesting to note that the railroad took delivery of the engines in coal-burning territory at El Paso, Texas, thus avoiding a stiff California sales tax.

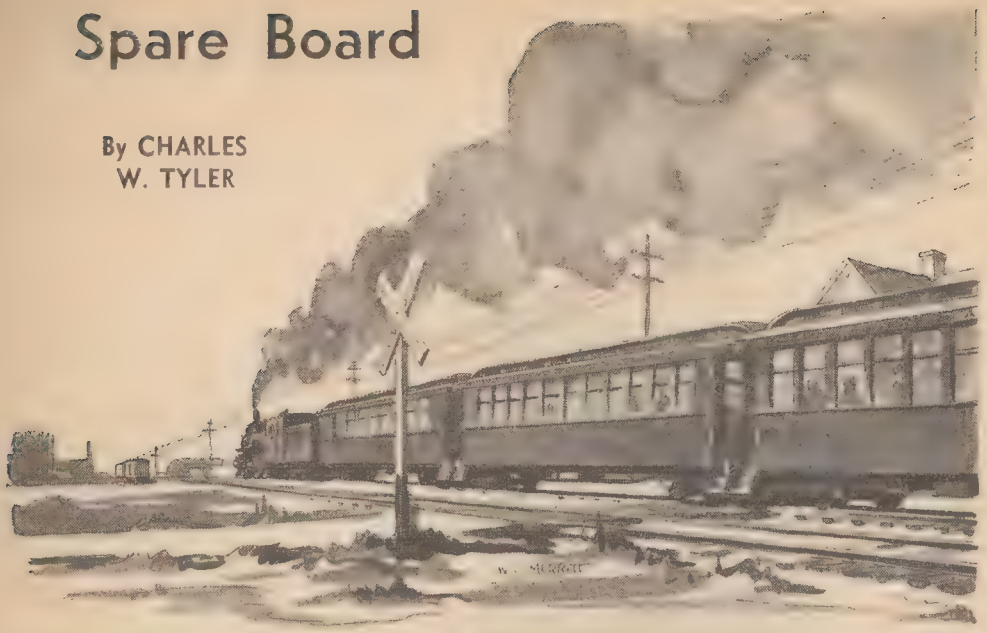
As the 4-8-4 type gains favor on more and more roads, sharp criticism comes from W.P.B., which points to the wastefulness of unstandardized design, and recommends the adoption of a basic pattern. Such a policy would have much in its favor as a wartime measure, but only as that. For efficiency and progress do not necessarily go hand in hand.

Specifications of the new Southern Pacific engines follow:

Class	GS-6
Numbers	4460-4469
Cylinders	27x30
Drivers	73½
Boiler Pressure	260
Weight on Drivers	283,200
Weight of Engine	468,400
Grate Area	90.4
Tractive Effort, Engine	64,200
Tractive Effort, Booster	11,300
Weight of Tender	399,100
Coal Capacity	23200
Oil Capacity	6080

Spare Board

By CHARLES W. TYLER



THE telephone conversation I had with Mr. Babb of the Boston & Maine on a certain winter day in 1913 ran about like this:

Tyler: "Hullo!"

Babb: "East Fitchburg roundhouse."

Tyler: "Hullo, Babb. This is Tyler. I just wanted to know how many times out—"

Babb: "Where the hell you been? Was tryin' to get hold of you. Want you to ride a dead engine to Readville. . ."

And at that moment I stood petrified, approximately *fifty-eight* miles from East Fitchburg, Mass. I was all dressed up in a dicer, a standing dickey, kid gloves and the rest, and was just going to take my lady love to dinner and the theater!

Scene Two shows this dandified gent chasing a Boston & Northern Street Railway trolley down Winthrop Avenue in Beachmont, Mass. A girl is standing on the curb, holding two theater tickets in her hand and yelling: "If I never see you again it will be too soon!"

Well, that is what a jane is up against when she starts going around with a railroad man. And what else could a railroad guy expect when he monkeys with a spare board? It's a snare and delusion.

A spare board, or extra list, as you know, contains the names of men immediately available to the crew dispatcher—he hopes. This list is as fluid, at times, as the changing tides. And, like the tides, it performs strange antics. For instance, a list as long as your arm will, through one medium or another, suddenly ebb to the low-water mark.

Men will "mark up sick" or stray out of reach of the telephone or callboy. They will be called for dog-catching jobs, for extras, for relief roles, for switch engines, or, perhaps, to ride dead engines to Readville. In those days, "dog-catching" meant being called to go out and bring in a train tied up by the sixteen-hour law somewhere down the line. Sometimes a short list of only four or five names might remain static for hours, with no crew being called. There is no measuring stick for a spare board, and only one safe rule: Stick around, or leave word where you can be found.

I hadn't been firing many months, but long enough to learn all the tricks. This day I had called the roundhouse two or

True Tales of the Rails

Actual Happenings Told by Eye Witnesses

three times. I had been something like twenty times out all forenoon, which meant that my name was twentieth on the list. It was one of those lulls before the storm.

I figured that Tyler would not reach the top of the list for at least twenty-four hours. And so, about one o'clock, I boarded a train for Boston. My home was then in Beachmont, Mass., near Revere Beach, north of Boston, on the line of the narrow-gage Boston, Revere Beach & Lynn Railroad. Now I'm living at 465 West Doran Street, Glendale 3, Calif., a long distance from tthe scenes of my youth. But that's aside from the story.

In those bygone days I had a girl in Beachmont, a lovely girl named Alice; but because of my job at Fitchburg, fifty miles west of Boston, we couldn't step out together very often. That afternoon when I reached the city I called her up.

"Hullo, Alice! This is Charlie . . . Yeah, I'm on my way right now . . . How about dinner in town and a show afterward?"

She was tickled to death. So I bought two theater tickets and headed for Beachmont. I'd had a bath and a shave, and put on my best black suit and standing dickey and patent-leather shoes. In due time I pulled the doorbell of my cutie's home. She came out on the front porch, fixed up mighty fetching, and we strolled over to the nearest street corner to wait for a trolley.

Then—of all things!—conscience began troubling me. The image of that spare board came to my mind and I wondered if they'd been calling many train crews. Of course, they hadn't—not so early in the afternoon. I was quite sure of that. Nevertheless, just to be on the safe side, I murmured:

"Guess I'll call up the railroad."

Alice demurred at first. Then she agreed, with a bright smile. "All right, Charlie, but don't be long."

I ducked into a small store that had a blue-and-white telephone sign over the door. Thus I learned the bad news you read at the beginning of the story. That long list had been used up. I was first out, and they wanted me to ride an engine to Readville!

Boston, Revere Beach & Lynn No. 13, built by Manchester in 1901

UNLIKE MOST PIKES, the three-foot-gage BRB&L as a steam road operated passenger service only. Incorporated in 1874, it was opened for travel between Boston and Lynn, Mass., nine miles, July 29th, 1875. Later it expanded. This presumably was the first road to adopt the telephone for train dispatching, in 1879, just as the Erie had been the first to use telegraphy for that purpose. The BRB&L began with three engines. That number grew to 26, the builders being Taunton, Mason, Manchester and Alco. In 1928-'29 the road was electrified. All but one of the steam locomotives were sold or scrapped, that one being kept to heat the car shop at Orient Heights, Mass. The entire line was abandoned in 1939, with a farewell trip by juice fans

I WAS flabbergasted. When I could talk, I made inarticulate noises, hanging onto the phone to keep from falling down. Then I said:

"My God! Readville? I—I'm not feelin' so good, Babb. I think I'm goin' to be sick. I *am* sick. I—I can't make it. . ."

Babb cut in: "Harh? What? Wha'zat?"

He started to cuss. I was afraid to tell him where I was, and wondered if he had been on the line when that silver was dinging into the pay telephone.

"Sick?" squalled Babb. "You ain't too sick to ride a dead engine. It's a soft job. Nothin' to do but sit on your dingbat. . ."

That was the trouble. It was a soft job, the softest job I'd been called for since hiring out on the Boston & Maine, and it paid continuous time. The trip might even take a couple of days. I'd ride in the caboose, with nothing to do but see that the dead engine didn't run hot and screw down some grease cups and squirt a little oil at her now and then.

Readville was south of Boston, on the New York, New Haven & Hartford. The shops located there apparently were to do the work on this engine for the B&M, whose back shops were too busy to handle her. The Fitchburg Division would deliver the locomotive to the New Haven at Concord Junction, east of Fitchburg. She would lay around there awhile, probably the rest of the night, with no freight conductor wanting any part of this B&M hog, for they were a drag in a train.

In the meantime I could probably get a nice snooze, for which I would be paid. After Concord Junction, there would be Mansfield, I knew, with more time there, waiting for a train to haul the hog to Readville. Then I'd deadhead back to East Fitchburg, via Boston, still on continuous time. It would be like getting money from home. No coal to shovel, no fire to hook, no grates to shake—a cinch!

And here I was, of all places, in Beachmont, almost sixty weary miles from East Fitchburg. And all set to have fun with Alice!

I couldn't very well refuse the call. There was only one thing in the world, as my befuddled brain saw it, for a man to say. I blurted into the mouthpiece, almost without realizing what I was doing:

"All right, Babb, I—I'll be there. God knows how, but I'll try an' make it."

I guess Babb was smelling a rat, for he yelled: "You'll *try* an' make it? You'll —Say, where in hell are you?"

But I never told him. I hung up.

I could hear a trolley car rumbling some place; and when I popped out of that store I was traveling—and fast. The car was sliding past the white post on Winthrop Avenue where my girl was standing. I jerked the little white envelope containing the theater tickets out of my pocket, and when I went by I handed them to her.

"I gotta go!" I panted. "Goo'by!"

I don't know where Alice thought I had to go; but from what she was shouting after me, I knew that a beautiful romance was perilously near the rocks.

There was snow on the ground, the sidewalk and street were slippery, and those new patent leather shoes were smooth. I took to the middle of the car tracks, where there was a little bare ground and I could get traction. If only I could run now like I did that night! I overtook the trolley at the next white post, where, happily, some folks were waiting.

It was half a mile to the narrow-gage station. A Boston-bound train was just pulling out. I quit the trolley, passing the car like it was standing still. Of course, it was slowing up anyway in Beachmont Square, but I could have outrun the darned thing anyway.

I caught the hand-holds of the last car of the train, and flopped into a seat. The BRB&L train stopped at Orient Heights, then puffed on into East Boston. This gave me time to get my breath and collect my wits. With a little luck, I thought, I'd reach North Station, Boston, in time to make the *American Express* on the Fitchburg Division. This job was made up entirely of express equipment, with an old coach for a way-car, and carried no passengers. I had tried to ride the *Ameri-*

can Express before, but it was strictly against the rules for them to carry anybody, and that went for deadheading railroaders.

No other train out of Boston would give me the ghost of a show of reaching East Fitchburg in time to ride that dead engine. I rehearsed what I was going to tell the brains on the *American Express* train, for I knew my story would have to be good.

Charles W. Tyler as he looks today

AT EAST BOSTON the narrow-gage passengers transferred to a ferry. Usually the ride across the harbor was a pleasant interlude, but not today, for me. It seemed that everything got in our way: garbage scows, coal barges and ocean liners.

But at last the ferryboat—the *General Brewster,* I think she was—poked her nose into the slip at Rowe's wharf. The gang-plank came creaking down, slowly. I didn't wait for the deck-hand to drop the chain, but was over it and gone, like a frightened quail.

I tore along the passageway, out to Atlantic Avenue, and up the stairs of Rowe's wharf elevated station, three at a lick. I've never climbed any steps faster in my life.

The first train on the Boston Elevated was marked "Sullivan Square." No dice. The next one was Sullivan Square. and it was a matter of sweet, precious minutes before the Pacific on that *American Express* job was going to start rolling her drivers.

The North Station el train came along. There were stops at State Street and the Battery, and a horrible wait at the tower where the Sullivan Square trains branched. I thought I'd never make it. When the guard popped the door open at North Station I was out of there and gone. I ran into folks and ran over them. A guy took a poke at me, and said:

"Take your time! You'll get there."

But I knew why I was running. Down the stairs, across Causeway Street, dodging pedestrians and street cars. Into the waiting-room at North Station and through the trainshed like a Kansas twister.

There was the *American Express.* With about a minute to spare, I found the conductor, and poured into his ear a tale of woe that would have softened a heart of stone. I practically cried on his shoulder.

The skipper shook his head. Then he relented at the last second. When he told me I could ride I felt like kissing him. I love that man to this day.

Ayer Junction was the first scheduled stop, as I remember it; then Fitchburg, but we got stabbed a couple of times, and I sat there in that old day coach fretting and fuming.

Fitchburg depot was a mile and a half beyond the East Fitchburg yards. I was out on the platform when we roared into the garden, hoping they'd slow down, but this job went right on through. For a second I considered jumping off, but I didn't want to mess up my good clothes. Anyway, a guy did jump off a hotshot in East Fitchburg one night, and they never did get all of the cinders picked out of him.

I saw a freight on the lead in the eastbound yards, with a dead engine coupled in the middle, and my hopes rose. Maybe I could make it. I wondered what I was going to ride from the depot back to East Fitchburg. There was a trolley line, but I figured my luck had about run out, and I probably would just miss a car.

When the train slowed at Fitchburg station I saw a trolley going down the street. I swung off, dodged around some cars and tucked my coat-tails under my arms. All I needed was a couple of tail

feathers to be as good as a mallard duck going south.

I caught the trolley, and was on the last lap. At the roundhouse stop I did some more high-stepping. Down the slope, past the lunch-wagon, sand-house and cleaning pits—and through the door of the oil room, where Mr. Babb hung out.

I looked at the spare board. There wasn't a fireman on the list. I fell against the counter and looked at old Babb. And he glared at me. I guess I was the fanciest fireman who'd ever reported for work in his time. There was that derby hat, a nifty overcoat with a velvet collar, a silk scarf, a dark suit, white shirt, high collar, a black tie. Oh yes, and a pair of kid gloves.

Babb clapped his hand over his eyes and took a deep breath. He called me something—I think it was a violet—and yelled:

"Holy catfish, Tyler, where in hell do you think you're goin'?"

"That dead engine for Readville," I panted. "I'm a-ridin' 'er." And added, "I didn't have time to—"

"You didn't have time?" Babb cried. "Why, I gave you a long call. Where you been?" He shoved a lantern at me. "Get out of my sight!"

I set sail down through the yards, and came to the extra freight and that dead engine. We went to Readville, the old Consolidation and I; and all along the line railroad men took a gander at me, out there screwing down grease plugs with a monkey wrench, and gave me the works. The New Haven boys said the Boston & Maine sure turned out lovely firemen.

That was thirty years ago, the good old days. The Boston, Revere Beach & Lynn —one of the finest little pikes in its time— has bowed out of the picture. And the Boston elevated structure on Atlantic Avenue, I understand, has been torn down.

I guess I set some kind of a record that day, riding two trolley lines, two railroads, a ferry and the elevated.

Did I hear you ask, "What about Alice?" Oh, yes. We patched things up later on. In fact, I married the girl—am still married to her. But it was a long time until she forgave me for having left her standing on the street corner in Beachmont that day.

Gravity Car

By BRIAN FAWCETT

ON THE WEST COAST of South America, where the towering *Cordillera* of the Andes rises precipitously from the very ocean to the ice-bound summits over three miles up, a piece of railroad equipment is to be found that for sheer thrills is almost unequalled.

This is the gravity car, hand car, inspection car, call it what you will. It is actually—not now perhaps as much as formerly—a convenient form of transportation for the maintenance-of-way engineer, the roadmaster, and other officials who inspect the track and require something that can be handled cheaply and easily. This vehicle has no engine. Its motive power is gravity, and on anything less than a two percent grade it is hardly practical. But put the car on a steady four percent and you have a little projectile of wood and iron capable of a mile a minute and more; so low that the sharpest curve need hold no terrors.

The rail-motor car, an automobile with pneumatic rail types, has supplanted the gravity car as far as the big shots are concerned, for the unsprung box, rattling the august posterior as a rivet is shaken by a pneumatic hammer, could not compare with the soft, deep-cushioned seats of the

gasoline buggy. To the lesser luminaries such as the roadmaster, however, the gravity car is still the best way of covering the track, and the one most likely to show up its imperfections.

On the Central Railway of Peru, whose gravity cars had world-wide renown some years back, their chief use is now to pilot the varnish down through the chasms and gullies. During the rainy season here, landslides and washouts are frequent. A rock of considerable size may be found reposing between the rails at any time. Track walkers are always on the job, but something might come down just after they have passed, or within the time of the passenger trains, so that a gravity car piloting the train on a five-minute headway will meet any obstruction, stop and protect. Stop, that is, if it can. Sometimes it can't, but that is not often. You'd be amazed to see how quickly these little bone-shakers can be brought to a standstill with their wooden brakeshoes and "armstrong" lever.

The picture shows a typical gravity car running as Number 132—a timetable train if you please—ahead of Number 2. The pilot, only his nose showing through the wealth of clothing, has a length of piping slipped over the brake lever handle to augment its power. He will have to use the piping if his companion—swing brakeman Number 2, going along to help rush the gravity car through the switchbacks—fails to discourage those dratted dogs by means of the rocks always put there for just such emergencies.

Dogs just can't resist 'em. From every section house and every village the animals emerge as the gravity cars rush past. Their ears go up at the first clatter of cast-iron wheels. They judge the distance, and as the car comes rocketing down they start off with flying ears and tails, running too madly to bark and straining every muscle to keep ahead. Often they pick the center of the track, in which case the pilot must reach for a stone. You can pelt them, but unless you disable them they won't get out of the way. Cruel, but necessary. Let one get underneath and it's an even chance which will come out worst, the gravity car or the dog—not to mention the riders.

These cars, such as we use on the Central, are nothing but wheels and a wooden frame. The ends of the frame extend, fore and aft, as handles for lifting it off the track. A couple of wooden benches are set on top. The wheels are of cast-iron, on shafts of axle steel working in half bearings of brass. Each wheel has a wooden brakeshoe operated from two connected levers, one for each side, and equipped with a pawl for holding the brake when stopped on a grade.

They travel up the mountain on the tail end of freight trains, and are stored at the top in a tiny barn against the time when they will be needed. Passenger-train pilots have their favorites among these gravity cars—one is perhaps more free-running than another—and stick to them as if they were personal property.

A trip down the mountain on a gravity car from Ticliom, 15,610 feet above sea level, to the coast, a hundred miles away, is an experience worth recording. The wild rush down through gorge and tunnel, around hair-raising curves laid on narrow ledges cut in the sheer face of the precipice—spinning wheels rattling and leaping at one's side—certainly contribute to a series of thrills; but there's the other side to the picture also. Flues and bees hit your face like bullets, making goggles essential. Cold mountain air nearly freezes your ears off. And the perpetual jolting and vibrating of that solid, unsprung body over the track numbs you from the waist down.

The speed is terrific—what you have nerve enough to attain. One of my early experiences with this form of locomotion was in company with a speed-crazy Traffic Superintendent. This man's brain worked too sluggishly to foster any idea of danger. It is usual for a pilot to go along with an official in order to do the switching and the pushing to start, as well as some of the braking; but no pilot cared to ride with this daredevil.

The Traffic Super's custom was to

Drawn by the author

DOGS often get in the way of the gravity car

wedge the brake lever in its off position with a large stone, so the nervous pilot could not take control into his own hands, and then, starting down a minute or two in advance of the varnish, see what headway he could hurtle into his destination. For zig-zags he took out the stone and freed the brake. Had anything been on the track between stops, it would have been taps for all three of us. Until this ride I was not aware of the peril, nor did I know that the Superintendent was breaking plenty of rules. I look back upon it now with a shudder at the risks we took, wondering how we ever got away with it. But at the time I was an eighteen-year-old boy and actually enjoyed the mad ride.

On another occasion I rode with the District Traffic Superintendent of the

Mountain Division in a gravity car without a pilot. We were coming lickety split into yard limits at the division point when, running through a little cloud of dust, my companion received a double dose and clapped both hands to his smarting eyes. Meanwhile I had been watching switches. As we approached a trailing switch set against us, I reached for the brake lever.

"All right!" shouted the D.S.T., probably thinking I intended to stop while he removed the real estate from his eyes.

But I took his approval to mean that the switch, being of the automatic type, could be safely run through—and I kept on going.

The switch was about twenty yards away from the wall at the end of the freight yard. We hit it at nearly fifty miles an hour. I, a greenhorn kid, never dreamed that the car was far too light to split a trailing switch, especially at the speed we were going. I was astonished when the car suddenly rose under us. Next instant the D.S.T. and I were rolling in the dust, wondering what had happened. Splinters showered us through a cloud of dust from the disintegrated wall.

Adventures are common with these gravity cars and the thrills are many. I have come across brief mentions of somewhat similar rides on Rocky Mountain rails in North America. Maybe some reader will tell me about them. My address is Casilla 3, Callao, Peru, and I work for the Central Railway of Peru.

Link-and-Pin Brakeman

By ROY PIERCE

I SUPPOSE all railmen are familiar with the story about the eagle-eye who left his engine very suddenly because he mistook the moon for an opposing headlight. Optical illusions do occur. I can testify to that fact from my years of train service in the Midwest. Some peculiar events happened during that time.

I am now living at Timmer, N.D., in a comfortable ranch home, where I contend with nothing worse than extremes of heat and cold, snow, rain, wind and sandstorms, also grasshoppers, rattlesnakes and high taxes. As I look back on the railroading I will never experience again, I recall many a brush I had with death. But my career has not been exceptional. Almost any veteran reviewing his life could tell you about somewhat similar cases.

One day in particular comes to mind. I was then about twenty-one and was braking freight on the Chicago, Milwaukee & St. Paul. A blizzard had set in. We were fighting our way up a heavy grade, when a glow which loomed unexpectedly in front of us bore a startling likeness to a headlight. Excited, I glanced across the cab. My engineer was gazing stolidly ahead at the same light.

With that doubtful reassurance, I stood my ground. Tension mounted. I could stand it no longer. Just as I decided that the time had come for action, since the man at the throttle was apparently an idiot headed for disaster, a pedestrian stepped aside. He was carrying what we called a farmer's lantern, and this no doubt included a strong reflector. I slumped back on the seatbox, immensely relieved because I hadn't made a fool of myself.

On another occasion, near the close of a mild October day, a light was very deceiving. I was head brakeman on a Milwaukee-bound drag pulled by a Mogul. Our engine crew was a Scandinavian team, Johnson and Yensen. The former, a switch engineer, was making his initial

main-line trip. Although Johnson showed no symptoms of booze, worry or incompetence, he seemed unsure of himself. Repeatedly he asked me where we would meet superior trains and how much time was needed to run certain distances. Answering his many questions was difficult, as I had not been railroading more than two or three years myself and had worked on the division hardly long enough to learn the road.

Roy Pierce

We arrived at Cedarburg, Wis., without incident. Down the line several miles ahead lay the sleepy little town of Thiensville, Wis., at the foot of a grade where almost anything could happen. An engine worked steam all the way from one station to the other. We were making at least forty miles per hour. As we approached the east switch at Thiensville, I was standing in the gangway behind the engineer, looking ahead. All of a sudden the Mogul went into reverse. Johnson yelled, "Yump!" He "yumped" all right—one leap to the deck, another to the grass roots. Meanwhile, Yensen had been shoveling in coal. Taking Johnson's word and without straightening his back, he also bounded out.

I dropped to the lowest engine step as near the earth as possible. In that momentary indecision, I might have flung myself out, but the thought flashed that I had seen a bridge somewhere. This recollection proved a deterrent. Otherwise, I too would have been rolling over the prairies and possibly killed, depending upon my landing luck and the obstructions met.

So I hung on, awaiting developments. Then my brain began functioning again. My first idea was that Johnson had received an order to meet an extra at Thiensville and had seen that extra or something blocking the main. Although I was sure my vision was as good as his, all I could see was a white switch-light and a clear track. My next impression was a nerve tester. I wondered if the eagle-eye had fallen asleep and allowed the water in his boiler to get low. Perhaps he was expecting an explosion. I lost no time getting into the cab and taking a hurried check on steam pressure and water level. Both were okay. I heaved a great sigh.

THEN I grew nervous about the west switch and beyond. I would have liked nothing better than bring the old girl to a stop between switches, but that was impossible. I did not dare to monkey with the throttle if I could avoid it, for in the excitement I could easily slide the driving wheels and flatten them. When Johnson unloaded he yelled that the drivers were skidding, but I was only about a foot from them at that time and am positive he was mistaken.

Old Betsy, as we called our engine, was working hard, contesting every yard of steel. I called for brakes and then hopped upon the deck and set some myself, meanwhile keeping an eye on the road ahead. Now, we had a ludicrous situation: the engineer and the fireman were tagging along behind the caboose, and a busy brakeman, meaning me, was firmly convinced that something was wrong, radically wrong, but didn't know what it was.

Our train moved first in one direction, then in another. The conductor and rear brakeman must have been racking their skulls to figure it out. At last the Mogul coughed to a standstill, but immediately began to run backward, as if searching for the crew that had deserted her. After a time, Johnson and Yensen clambered aboard, none the worse for their morning exercise. The buttons on the fireman's jacket were drawn full of dried grass, indicating a belly landing, while Johnson seemed a bit dazed. On our arrival in Milwaukee, we headed for the nearest bar. There the truth came out. Johnson admitted he had been sleeping and woke up just in time to get the glare of the white switch-light in his eyes, which naturally confused him. At that time switch-lights

showed red and white, instead of the present-day red and green, as you might gather from Cy Warman's famous poem, "I Hope the Lights Are White." Anyhow, Johnson asked me to keep my mouth shut about the incident, which I did for the rest of the time I worked on the line, about six years.

After several months on this division I left, but returned three years later to the same place and the same job. That evening the branch local pulled into town. Yensen was in the cab and I was standing at the switch nearby waiting for the branch cars to be set off. Never a fancy dresser, I was not too well attired at the time, so Yensen did not recognize me. Evidently he sized me up as a tramp, for he generously motioned for me to hit an empty rattler behind the engine. Later I went into the cab and kidded him about the Thiensville incident.

On his very next trip Mr. Johnson drove his engine through a train on another road; and the last I heard of him, he was on a painting job.

Years later—in about 1913—I read in a newspaper that his jumping mate, Yensen, had met death when a locomotive hit an obstruction deliberately placed on the rails by vandals. Enemies of the railroad used to do that sort of thing periodically.

ONE EVENING in 1889 I was head brakeman on a southbound drag of the old Milwaukee Lake Shore & Western, a road long since merged with the Chicago & North Western. We left Antigo, Wis., but when we came to the Birnamwood milepost I hopped out on the hurricane deck to find that our train had been broken in two. I gave the customary broke-in-two signal, which was a lantern swing in a large circle at arm's length.

Further scrutiny showed that the train had parted into *three* parts, the latter two drifting by themselves. The middle section was gaining on the first one, because our engine had met a rise in grade and was slowing up. I signalled the engineer. Although I yelled to him at the top of my lungs, the conductor happened to be riding the cab, visiting with the eagle-eye, and nobody saw or heard my signals.

If I had dropped down into cab when I first discovered danger, I could have stopped the conference and got action in thirty seconds. This I did finally, but the action came too late. We then had only one car with the engine. The middle section drove into it, jamming the engine tank. Loss of water was our greatest inconvenience.

I read in the September issue of *Railroad Magazine* a reference to the ancient,

Photo from Paul W. Prescott, 218 Whitney St., Conneaut, O.

NICKEL PLATE train ditched at Amboy, Ohio, about 1900

two-axle, four-wheel, open-top dump car, but no explanation was given of the method used to get from one brake to the next, when the car was empty. I will tell you how we did it. From the platform at the end of the car we stepped to the lateral, or side, beam, then diagonally over to a cross beam; and so on, depending upon the number of cross beams. I think there were two. There was no sidewalk in the center. The trap dump door often swung on its hinges. I am quite sure this hazardous equipment is now extinct.

NO MAN, in my opinion, is the architect of his own fortune. It may please his vanity to *think* that he is, but even a superficial knowledge of life should teach him otherwise. Any engineer, fireman or brakeman knows that in emergencies, if we had to depend on the slow process of thinking things out, our second trip might be to a hospital or a cemetery. I sometimes speculate as to why things happen the way they do. You can call it fate, instinct or just plain luck. I am certain that in my own case, when the going got tough, I was not the master of my destiny.

This I will illustrate by citing an adventure I had at Iron Mountain, Mich. Our engine was heading onto some cars and I was riding the pilot—we called it "cowcatcher" then—to make the coupling. With twenty or thirty feet still to go, I stepped off in front of the locomotive, between the rails, intending to skip ahead and set the coupling pin. However, I misjudged the engine's distance or my own, for the pilot caught my heel. As I wrenched to get my foot free, I tumbled over, floundering helplessly. When the crucial moment arrived and death seemed about to strike, guess what happened! My lighted lantern left my hand, sailing over to the right in front of the engineer. He saw it and, of course, "big-holed" instantly. In my struggle I had flung that glim—or, to be more exact, let go of it.

But I had been concerned only with keeping from under the wheels until they slowed for the coupling. I did not toss the lantern deliberately. Fate tossed it.

And now my mind goes back to an episode at Mandan, N.D., forty miles from the Cannonball River Valley. My work was with a construction crew on the Northern Pacific, knocking mortar off old bricks so they could be used again in the enlargement of a roundhouse. One day a white-collar man who looked like a railroad official stormed through the yard. I stopped to ask him if he were looking for someone. He replied that the way freight was ready to go but they were short a brakeman. Well, it took me less than one minute to prove that I was the help he needed. Then he said:

"She is made up on the main stem. Get over there as soon as you can."

Covered with brick dust from head to toe, I ran across the tracks and reported to Conductor Bradford. He gave the high sign and we were off. I walked over the tops toward the engine, supposing that was where I would work. The head brakeman came tearing back. We met in the middle of the train.

"Get off this train, 'bo!" he cried.

"I won't do any such stuff," I said.

"I'm telling you to get off."

"And I'm telling you that I'm riding this train."

After some hesitation and possible estimation of my measurements, he agreed to a compromise.

"Well, if you won't get off, get down between the cars out of sight. The trainmaster stands there at the depot. He just now cut a chunk out of me for being late. He'll fire me if he sees you."

Then I explained.

"Darned glad to see you," the shack grinned. "We've got nineteen peddlers."

It was four p. m. This local often required twenty-four hours to negotiate the 95-mile division, Mandan to Dickinson. But I didn't mind. I knew we had lots of overtime and would hit the hay in blind sidings.

At Kurtz, N. D., I slept for nearly four hours in a blind siding, but was rudely awakened by a voice shouting:

"Look out, Pierce!"

Startled, I opened my eyes. Through

the rear door of our caboose, a headlight was approaching rapidly, less than two car lengths away! There was no chance to jump. With a sleep-befogged brain, eyes blinded and ears fanned by the terrific roar of a Limited, it was impossible for me to grasp the situation in a split second. Questions arose: What train is that? What track is it on? Where is the train we were ordered to meet? Above all, are we in the clear?

After the Limited had passed, I finally got my bearings and realized our train was exactly where it had been since we pulled into the siding. Excitement died down. I sank back on the cushions, my knees wobbly and my legs feeling weak.

LATER, at Glennullin, N. D., the first station west, I walked over the train hunting for a persistent hobo who scrambled aboard again every time he was put off. When I came to an empty with both side doors open, I laid on my belly trying to lean over far enough to see into both ends of the car. A sudden sway left me for a second exactly balanced on the edge of the car roof. The next lunge of the car favored me so that I could claw my way back to safety. With the train moving at a terrific speed, the ties and rails below did not look inviting. Somehow this always seemed my closest call. I was utterly helpless. The incident is cited as an example of fool's luck.

On another occasion, when I was working on the CM&StP, we made two trips daily from Hilbert, Wis., junction point for the twenty-mile branch line, to Appleton, Wis. Our last run left Hilbert Junction about ten p. m. Our main-line connection had come and gone and the station was deserted except for the operator and train crew. Our train was ready and our time was up. The conductor lingered in the telegraph office.

We discovered a leak in the air-hose coupling between the coach and the baggage car. I went under on one side, while my partner crawled under the opposite side in an effort to stop the leak.

I suppose the conductor came out, threw a highball and went on into the train. No voice was heard. No bells rang. No whistle sounded. The two-car train began to move forward. We hitched along, thinking the engineer was having his engine moved so as to get at the oil holes. But when we felt the train gathering speed, we realized we were in a mighty bad situation. We didn't think to dynamite 'em by breaking the air-hose coupling, or pulling the air as if it were broken.

I clawed my way out to ride on the wooden outside brake-beam. Although I had ridden a passenger train from top to bottom and from end to end, I had never before traveled on a brake beam. I had not only the coach steps to contend with but the station platform as well. The latter was about twelve inches or more above the roadbed. At one time I distinctly felt my leg lying on the rail ahead of the oncoming wheel!

On the opposite side my partner, Sam Orton, had a better chance. Besides, he was a small man. Sam had been in a wreck where a forest fire warped the rails, had jumped and broken a leg, while his engineer had been killed. He must have been thinking of that tragedy as we rode the brake-beam.

Somehow we managed to escape from under that car, the devil knows how. Our conductor was an old-timer. This man was so shaken by the experience that he quit the road immediately afterward. But the con wasn't the only one at fault. We had all been negligent, including us brakemen, who should not have crawled under the car without first notifying the conductor.

In the spring of 1890 I lost my right thumb. It was crushed between drawbars while I was working in the yards at Appleton, Wis., and had to be amputated. In the same yard and on the same day a switchman was caught in a frog, losing the foot as a result. In those days, some of the railroad companies didn't bother to block their frogs or guard their rails. The line on which I did my first railroad work actually dug clinker ash-pits about

Photo from Granville Thomas, Millville, N. J.

READING camelback on PRSL train near Risley, N. J., in 1932

three feet deep between the rails at all water tanks! Believe that? It's true. The murderous idea was not abandoned until several men had been killed by it.

Which recalls how the hand of Fate saved a human life. This happened on a dark wintry night while we were switching at Channing, Mich. We shoved a long string of cars northward. I was standing at the switch on the western side of the string. My partner, only a boy, was about two car-lengths ahead, making a cut. The kid was in love. When he passed me he was walking between the rails, fumbling with the couplers in a dreamy sort of way. It seems he had a girl at the other end of the run, Ontonagan, Mich., and his thoughts were probably with her instead of on the job.

For some reason I cannot now recall, I stepped over to his side of the rails and we silently walked along together. Not a sound broke the peace of the quiet night. By the sickly light of my trainman's lantern I saw his foot stub the end of a guard rail and become wedged in it. Naturally, I sprang to help.

Now, while you are assisting a man from such a critical position you act largely on instinct. Unless you have a well-made plan, your hold might slip or garments might catch or tear or otherwise interfere with the rescue. But with only seconds to go, I had no time for plans. I caught the youth by the thigh muscles, my thumbless hand making fingerprints even through heavy mitts. At the same instant I threw my entire weight, about 175 pounds, against him violently, thus forcing him across the drawbars. After that, simultaneous push and pull freed the foot.

The boy then stepped outside the rails, walked a short distance and sat down, breaking the silence with these words:

"Roy, you have saved my life!"

But Fate had done it—I hadn't!

Later, at the point of contact, I picked up and carried for a long time a wedge-shaped strip of leather. Nearly two inches long, the leather had been gouged from the center of a thick, solid, shoe sole. I do not recall the brakeman's name, nor do I know what became of him. But I hope he married the girl of his dreams.

I'LL NEVER FORGET a certain evening when we left South Kaukauna, Wis., on an MLS&W freight, Number 8, southbound. I suppose that on the Chicago & North Western today you'd call it eastbound. Anyhow, we found the order board against us at Oostburg, near Sheboygan. I dropped off at the station. Conductor got his train order and handed me a copy, which I delivered to Engineer Hays. This was against the book, even in those days. And mind you, I told him the contents.

The order stated: "No. 8 will meet No. 11 at Cedar Grove." Hays read it and pulled out. Cedar Grove was the next station and by that time the sun would be up. Our fireman had not worked on the division before and was firing heavily. The engine was pulling hard. So as we were nearing Cedar Grove, I remarked to the fireman:

"We meet Number 11 here."

The engineer should have heard if he was awake—and he said later that he had been wide awake at the time. His engine was not shut off until it was too late to reduce speed materially.

From my vantage point on top of the train, I could take in the entire situation. Number 11 had held the main line and opened the switch for Number 8 to take siding—which we took at a rapid pace. All might have been well if the siding had been clear. But a few car-lengths in, we collided with a lone boxcar, pushing its forward trucks off the rails and over against a grain elevator, the rear end of the car and front of the locomotive reared up, came back and rolled over on their sides.

Number 11's engineer told me that when our engine came opposite him, Hays was trying to get out the cab window, as his old girl was tipping over; and said he would not have given a dime for Hays's chances. The fireman jumped, was thrown against a building and slightly hurt; but nobody else was injured.

Now, when I first saw that engine working steam past the safety point—the point where speed should have been reduced—we'd have had no wreck if I'd jumped into the cab and closed the throttle, or saw that it was closed instead of trying to stall her with hand-brakes.

The most pathetic case it has been my misfortune to encounter was that of my friend Grover Newman, who came from Boscobel, Wis. At one time Newman was worth $40,000, I believe, this money having been made from horse racing. He was known as a roughneck and a fighting fool, and his girl friend refused to marry him unless he reformed. So he gave up the racetrack, landed a job as freight brakeman on the CM&StP, and, of course, trod the strait and narrow way. After four years of this kind of life the young lady set a date for their marriage.

Newman was with me on a work train at Elkhart Lake, Wis., a summer resort north of Milwaukee, forty-five years ago. One day he laid off and went to Green Bay, a division point, to get a time check to pay his wedding expenses, but came back dejectedly. It seems they wouldn't advance the money. I asked my friend how much he needed.

"Thirty dollars," he said.

I loaned him that sum, and the ceremony was performed on schedule. Just two months and one day from the date of the wedding, Grover Newman was my head brakeman on a main-line freight. We stopped at Random Lake at four a. m. and we talked for a time in the telegraph office, Newman entertaining us with the tale of a fight he'd had on a Mississippi steamboat. His collar bone had been broken and never completely healed.

When we pulled out, my friend walked over to the engine—but never got there. In going from the head car to the tender, he fell down between them and was badly cut up. We did not miss him until the next stop, which was Chilton, fifteen or twenty miles away. Why the dispatcher did not send us back to search for Mr. Newman is a question I cannot answer to this day.

The unfortunate brakeman was found by the section crew when they came on duty. He had dragged himself away from the track. Although he was dying, he said:

"Get word to my wife that I owe Roy Pierce thirty dollars. Pay it out of my life insurance."

A train pulled by. Newman raised up on one elbow, waved a salute, called to the crew, "Out of town, boys!" and sank back dead.

I marvel at the character of this man, who thought about a trivial debt even while he was waiting for a meet with death. Oh, yes, one thing more. His widow paid the money.

Bygone Days on the Texas Trunk (Now T&NO)

Photos from George T. Atkins, Executive Vice President, M-K-T Lines

(Top) Engine No. 7; (middle) the road's only caboose; (below) No. 4

An Eternity in Seconds

By MILLARD S. BROWN

NICKEL PLATE ROAD

WHEN you are young and peering into the future, thirty years seems almost endless. But when you are on life's downward slope and look back over the same stretch of time, as I do now to the night of January 4th, 1914, you realize with dismay how fast a little matter of three decades can creep up on you. I'll never forget that night. The air was clear and cold, with a million stars shining. I glanced at the roundhouse thermometer on the way to my engine. It showed twelve below zero. I was firing a regular place in the pool on the Toledo, St. Louis & Western (now Nickel Plate) for an engineer named Gregory Hiatt. He and I had been called for Number 42, a red-ball freight run from Frankfort, Ind., to Delphos, Ohio.

I accepted the call reluctantly. The weather was so frigid that, by contrast, my cottage home had never seemed more attractive. However, I made it a rule to work whenever I was marked on the board, regardless of weather; so I bundled myself up and walked rapidly to the roundhouse.

There I found we had drawn engine 194. She was one of a series that the road had bought from Baldwin only a short time before and had been used enough to be well broken in. It did not take me long to get my chores done about the engine that night. I was glad to climb into the heated cab as soon as possible.

In due time the brakeman came for us and we quickly coupled onto our train—forty-five reefers of dressed meat bound for a New York market—which had just pulled in off the Third Division. The air was tested, orders were read. Hiatt whistled off and we started.

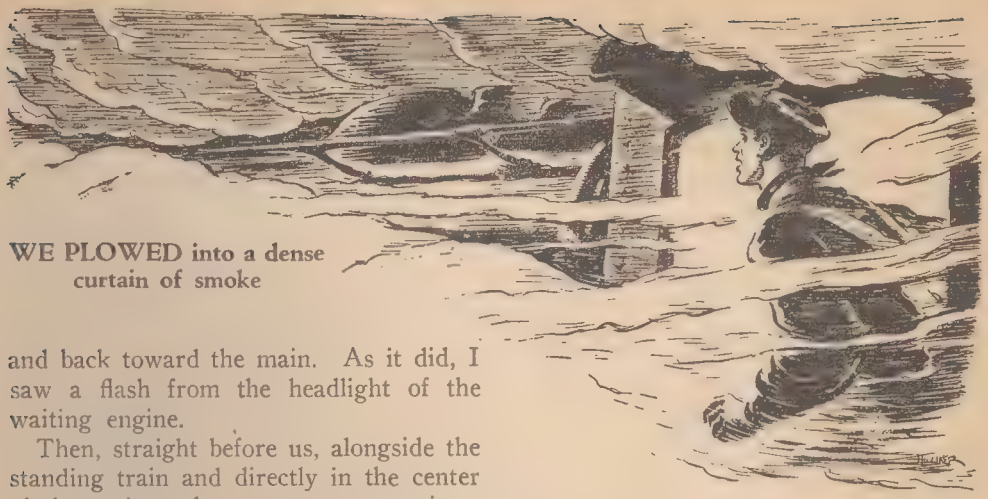
Down the hill from the yards we roared, past the depot. Before we had reached Frankfort city limits, the 194 was getting into her stride, swinging the train at a fast clip toward Avery hill, which stretched for eight miles to Michigantown. With a light new fire and a pressing demand for steam, I was as busy as one man could be all the way up the hill. Gaining speed, we soon reached the top. Then my job became easier; I could pause a bit longer between fires.

Just east of Forest we reached a downgrade that lasted for as far as Kokomo, about thirteen miles. We had left Frankfort almost an hour late. With our orders we had received a note from the dispatcher urging us to make up all the time possible. The 194 had been built for hotshot freight, and Hiatt was a runner who could get from an engine all she had in her. Neither of us had ever before worked on one of these new Baldwins, but we had heard wonderful tales of their speed and power.

Coming into Russiaville, we were making at least seventy miles per hour. I glimpsed an order board at the station and answered Hiatt's call of "White block!" Then, stepping to the deck, I put in a good fire. After that I went over to my window, pushed back the sash and thrust out my head for some fresh air.

MY GAZE went to the roaring stack, then to the funnel-shaped cloud of black smoke and bright sparks that shot high into the starry night. Next, through force of habit, I gazed at the spot where our headlight lighted up the track.

While I was looking, with a scream of flanges on the frosty rail, we hit the curve east of Russiaville depot. Just west of this curve was a passing track where, unknown to Hiatt or me, a westbound freight lay waiting for us to gallop by. Our headlight beam swept around the curve



WE PLOWED into a dense curtain of smoke

and back toward the main. As it did, I saw a flash from the headlight of the waiting engine.

Then, straight before us, alongside the standing train and directly in the center of the main, a lantern was swung in a washout. A more imperative stop signal it has never been my misfortune to see. No need to yell "Flag!" Hiatt saw it even before I did. His throttle crashed shut; his brake valve gasped its hair-raising *whah* as he "wiped the clock" with an emergency application of the brakes. Our big chime whistle answered the flag with two short blasts.

Our thundering exhaust ceased. The smoke from the green fire I had just put in dropped and mantled the engine, obscuring our vision until we were practically blindfolded. Hiatt yelled: "The blower —turn on the blower!"

Manfully I strove to comply with his order. But for an instant I was lost. The blower valve on 194 was much lower than on the ones to which I'd been accustomed, and instead of the familiar globe valve we had a two-way or angle-cock valve. Such was my fright that I fumbled blindly down the blower pipe until I found the valve. In the small, very small, fraction of time as we plowed with undiminished speed into that dense curtain of smoke, my mind worked at lightning speed.

On this road it was the custom—a bad one!—for a train that was too long for the passing track to await a train at a meeting point with the headlight burning, instead of sending out a flagman as the rules required. This burning headlight was supposed to call the opposing engineer's attention to the fact that the main was not clear. Therefore, he'd come to a stop alongside the passing track and allow the train on the siding to pull around him. We called this "sawing by."

A dangerous feature of this procedure was the uncertainty of the headlight itself, which was an arc light type. Owing to faulty mechanism, the light had an unpleasant habit of flashing off and on rather frequently. The flash that I saw, coupled with the close-following stop signal, registered in my mind as an abortive attempt to stop us for a "saw by."

We were tearing down the main track at frightful speed. Every instant I expected our mill to plow into the side of the waiting train. I knew that if she did, we in that cab had not even the ghost of a show for our lives.

Why didn't I jump? Well, I thought of that, but was stiff with fear. Besides, I checked in my mind the slim chances I had of safely "joining the birds," and dismissed each one. The frozen ground out there was about as hard as iron. At the speed we were traveling, a man leaping from that high gangway would hit the earth as though fired from a gun. Then, too, not more than twenty-five feet from the track stood the woven-wire right-of-way fence, ready to catch and throw back toward the train anything crashing against it. Finally, I figured that our engine and

Railroad Photographic Co.

WABASH MOUNTAIN TYPE whisks the ***Banner Blue Limited*** through Chicago's 47th St. Station at fifty miles per hour. She runs between the Windy City and St. Louis on a five hour and fifty minute schedule

cars would be derailed turning over in the right-hand ditch. Any luckless human being on the ground there would be buried under the wreck.

It was no choice at all. In the brief time, years of past and future swam before me. With my head still out the cab window, striving vainly to pierce the veil of smoke, I managed to find the blower valve with my fumbilng right hand. Giving it a quick jerk, I threw it wide open. A roaring jet of steam rushed up the stack and, almost miraculously, the smoke curtain lifted.

THIRTY years have passed since that night. My hair is now white—maybe some of its color was lost there at Russiaville siding. Youth's hot blood has cooled somewhat since then, and the thrill of narrow escapes that once were just part of the day's work has probably gone, never to return. But as I write this true story, memory brings up the picture again vividly before my eyes.

Once more I see—as I saw that night when the smoke lifted—not a line of cars curving out on the main but a train standing in the clear; and the deck light on the caboose—large, it seemed to me, as a harvest moon—showing by its green color that all was right. High above the noise of our speeding engine came my exultant cry of relief:

"It's green! It's green!"

No need of that shout. Hiatt saw what I had seen. Forward to full release went the brake valve. He snatched open the throttle. The crescendo roll of exhaust blared out as the 194 surged forward.

This running release of an emergency air application is bad practice and contrary to rule. I believe that in the case of modern equipment it is practically impossible without disastrous results. Why a calamity did not happen then, I cannot say; but I do know this: so short was the interval between application and release that, so far as I could notice, we did not check speed.

As we cleared the passing track, I sat down suddenly on my seatbox. The reaction was so great that I slumped. Our cab on that below-zero night was cold, but I could feel the perspiration running down my back. I looked across to Gregory Hiatt. He yanked out his bandana and wiped his face. Then he jerked his cap lower over his eyes, looking out ahead with never a word.

I glanced at the stack. It was clear. After that I stepped to the deck to put in a fire, but my knees buckled and down I went. Scrambling up, I tried for that elusive firedoor with a scoop of coal. My aim was poor. For about five miles I made a miserable exhibition of firing with more black diamonds scattered over the deck than I got in the firebox. When we slowed down, nearing Kokomo, the engineer called me over to his side and asked:

"What happened back there?"

Dumbly I shook my head and kept puzzling over the experience. Later on, while we were waiting for the air to pump up after taking water at Sims, we talked it over and decided that the flash of light from the waiting engine must have been the beam from our own headlight thrown back by the reflector in the headlight of the locomotive on the siding.

As to the washout signal, we agreed that the brakeman on the opposing freight must have been coupling up his cars, where they had been cut at a road crossing about ten cars back of his engine. For some reason or other, he must have been working at the left side of his train, which would have placed him on the main. When we swung around the curve we were so close to him and were coming so fast that he probably got excited. His over-vigorous stop signal doubtless was intended for his own engine crew. When the flagman heard Hiatt answer and realized what he'd done he discreetly kept out of sight.

Fortunately, no harm was done. After my nervous system had settled down, I suffered no ill effects.

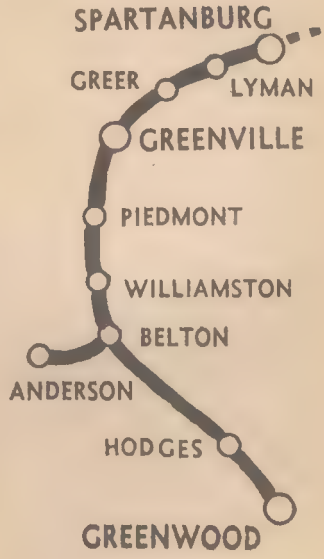
Any old-timer who recalls that incident —or a similar one—and wishes to write me about it, can reach me at 275 East Second Street, Logan, Ohio.

SWITCHING MOTOR 5005 handles interchange freight in the Piedmont & Northern's Charlotte, N. C., yard

INTERURBANS 2104 and 2101 wye into Greenville, enroute to Spartanburg

Photo by W. J. Burton, Duke Power Co., Greensboro, N. C.

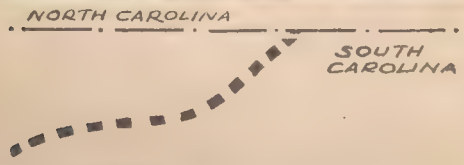
MOST POWERFUL freight haulers are of the 4-4-4-4 type, built twelve years ago

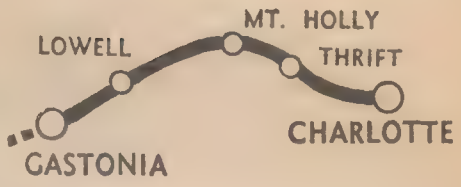


Electric Lines

Conducted by
STEPHEN D. MAGUIRE

Piedmont & Northern





ONLY remaining electric line in the Carolinas, the Piedmont & Northern Railway is also the longest interurban line in the entire Southeastern United States. With more than 125 miles of track, it operates two physically disconnected divisions, one running between Charlotte and Gastonia, N. C. (25 miles); the other linking Spartanburg and Greenwood, S. C. (90 miles). During the 1930s, the

Photo by Vic Wagner, others by S. D. Maguire

READY TO RAMBLE out of Charlotte, eastern terminal of the North Carolina Division

MAROON COLORED SPEEDSTERS
350 and 401 are former LIRR cars

company made attempts to join these two properties with fifty miles of new line, but the I. C. C. ruled against such on behalf of the Seaboard and the ACL, which already served the territory involved.

The road operates both freight and passenger service, with emphasis on the former, which turns in ninety-eight per-

LEFT: Trolley poles of multiple unit trains are bonded

BELOW: Pacific Fruit Express car brings up the rear of Gastonia-Charlotte train. The station is Thrift, N. C.

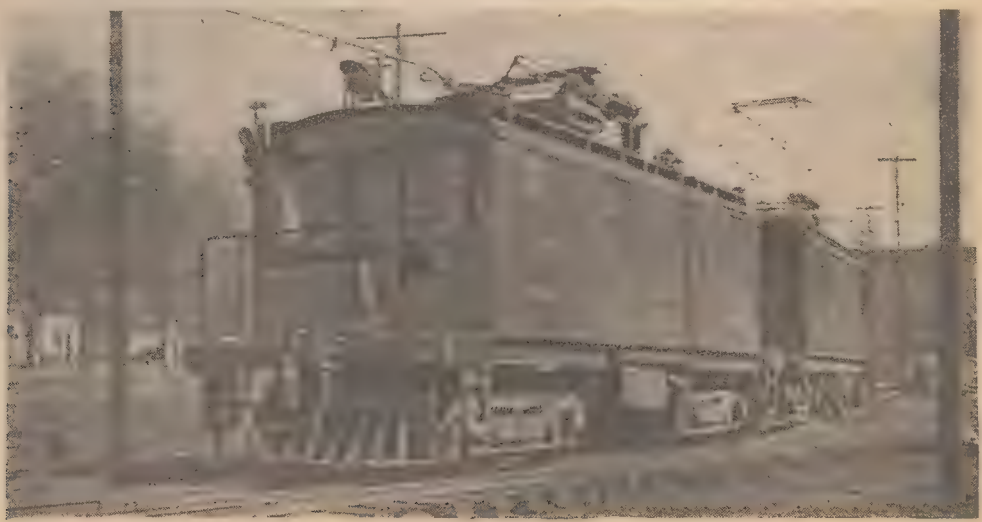
TO KEEP its freight franchise, P&N operates city cars 2 and 4 down the main thorofare of Gastonia, N. C.

cent of all revenue. Contributing to the top-heavy ratio is the fact that this is important tobacco and cotton territory.

Freight service is provided by motors of widely different designs, including a number of impressive sixteen wheelers. Passenger hauling on approximately two-

MOTORMAN of No. 4 holds broom out of the window, ready to trip switch at Gastonia

5100 SERIES freight motors operate in tandem at Spartanburg



WHILE city car waits, interurban train No. 6 swings out of Gastonia Terminal on to Main Street trackage

hour schedule is assigned to heavy old wooden interurbans, together with several steel cars that came from the Long Island Rail Road several years ago.

An unusual feature of P & N operation are the two city cars which the line runs in Gastonia streets. This service, required by the franchise which permits freight to be hauled through the heart of the town, languished during recent years. But tire and gasoline shortages have altered this; seats are now at a premium on the city line.

Car-Barn Chatter

Steve Maguire

WHILE we are checking up on your reaction to Roy White's yarn, "Marker Lamps," which was featured here last month, we announce with pride that Roy, a Chicago El employe, is preparing an illustrated fact article for us on the subject of the world's busiest railroad crossing. As this crossing is on the electrified Chicago El, it naturally has a direct appeal for juice fans. The article will include both technical and human-interest material. We aim to publish it very soon.

Recently we have tried three kinds of openings for the *Electric Lines* department: (1) picture-story, such as that of the Piedmont & Northern this month and the Pacific Electric in January, (2) illustrated fact articles, and (3) juice-fiction story.

We vary the "head end" from month to month. We might even couple on a true tale—if some electric railroader will send us a first-person account that seems to be entertaining. One example of the type of contribution we could use in this department is R. T. Gunnison's "Beating the Timecard" (on the old Rochester, Lockport & Buffalo), which appeared in the February *True Tales of the Rails* section.

Now we come to a criticism. The charge is made that *Electric Lines* is lopsided because it sticks almost entirely to trolley cars (city transit lines and interurbans). This challenge was flung at us the other day:

"Why not print news and pictures of electric locomotives and electrified sections of steam roads?"

The answer is plain. You readers determine our policy. We deal with subjects in which *you* express interest. Nearly all the correspondence received since we took over this department has been limited to streetcars and interurbans. If and when our mail ever begins to reflect a strong interest in electric locomotives, we will keep pace with it in these pages.

Incidentally, Aurion M. Proctor has been assigned to prepare a long, instructive and well-illustrated feature article on "juice hogs" for early publication in *Railroad Magazine* (but not in this department).

* * *

GOOD NEWS. Throwing superstition to the winds, Kansas City Public Service ran their first car over their first major rail extension, to the new Pratt-Whitney plant, in the early morning of December 13th, reports A. E. Hickerson, 2304 East 15th St., Kansas City 1, Mo.

According to Mr. Hickerson, the last previous rail extension in his city was in 1928, when a loop was built at the east end of the 15th Street line—which has since been converted to trolley buses. He adds:

"The KCPS turnstiles that have been erected at the Pratt-Whitney plant are reminiscent of the big Sunday crowds at the old Electric Park, when an elaborate turnstile system was built to handle the heavy crowds."

* * *

KIDNAPPED CAR. Crime took an unexpected turn in Oklahoma City. Twice in one week, an unknown individual with a peculiar interest in railway lines "borrowed" an interurban car from the traction terminal in the dead of night and went for a pleasure ride on the company lines. From Royal H. Bowers, 3000 N.W. 11th St., Oklahoma City, we have the story of these unusual events.

It seems that the Oklahoma Rys. always kept a spare interurban car on a track at the terminal, ready for operation in case of emergency. This car suddenly disappeared one night and was seen running in the direction of El Reno. Next morning it was found deserted near the city stockyards. Empty beer bottles were strewn inside the car.

The second unscheduled journey occurred the same week, when it went for a trip on the Classen line. Company officials, informed of this kidnapping, sent sleuths to locate the car. However, it returned to the terminal unseen, almost as mysteriously as it departed.

Now while the car is in the terminal it is kept chained, with a heavy lock. No further reports of its disappearance have been received.

Photo by Sgt. Robert W. Richardson

LAST trip of the Lancaster (Ohio) Traction & Power Co., abandoned in 1937. The car was No. 23

CONNECTICUT CO. private car cants to a curve on the Branford Line

* * *

SOUTHERNMOST railway in the country was the Key West Electric Co., which began as a mule-car and operated, from 1899 to 1926, two miles of juice line at the country's southeastern tip. These facts we learn from a *Bulletin* just issued by the Electric Railroaders' Ass'n, 152 W. 42nd St., New York City 18, and selling at 25 cents per copy (free to ERA members). The brochure, illustrated, was written by ERA president, Lt. Comdr. E. J. Quinby, USN, after extensive research made at Key West, Fla., where he is stationed. Of interest to steam fans is the part of his story dealing with the Florida East Coast oversea extension.

* * *

CLEVELAND TRANSIT has opened a through car line from the east to the west

side of the city—for the first time in thirty years. This fact is reported by Bill Andrews, 31060 Lorain Rd., North Olmstead, Ohio, who says it is now possible for passengers to travel the 18 miles across Cleveland without having to transfer at the Public Square. This was accomplished by combining car lines of Mayfield-Center Rd., Lorain Ave., Rocky River Dr. and Puritas Loop. The Puritas Loop line is somewhat new. At one time it extended to the Municipal Airport, but was abandoned around 1938. Since the war it is again in use for about half its former length and has a new loop, modeled after the landscaping in other cities.

* * *

PACIFIC ELECTRIC photo *(Jan. issue, page 93)* showing a narrow-gage car on Spring St., Los Angeles, in 1903, takes a Colton, Calif., reader back to his boyhood days and makes him wonder whether or not he was standing there on the curb at the time.

"The picture was snapped from First St.," he writes, "looking north toward the now long-forgotten Temple Block. Not a building shown there remains today. Even the bend in the street has gone."

Another Californian—W. B. Garner, 501 Arrowhead Ave., San Bernardino— tells us of a recent fantrip which the Railroad Boosters took out of Los Angeles.

"We used No. 1229, the president's car," he relates. "It was a treat to be able to plan and carry out an excursion of this kind in wartime. The PE really railroads on their single-track Santa Ana line. I marveled at the way meets were made by phone, with no operators to OS them to the dispatcher."

Garner adds: "The San Bernardino bus line, which replaced trolley service not long ago, has just sent East for three new busses. Seems funny how such an outfit can get this equipment, yet the railroads are denied new cars. We are all saving gas and tires, while the busses waste both. Frankly, the situation smells—and I don't mean only the busses."

* * *

REMEMBER that announcement in our January '43 issue of the marriage of a couple of juice fans, Bob Brown, treasurer of the Pittsburgh Chapter, National Railway Historical Society, and petite Mary Mikeska, whose photo we published in that issue? We now report the birth on November 16th of the chapter's youngest prospective member, Wm. Lee Brown, 8½ pounds.

* * *

DARK SHADOWS have fallen across the Milwaukee Electric's rapid transit interurban line to Racine and Kenosha, mourns Donald Kotz, 6336 Sheridan Rd., Kenosha, Wis. Sale of this branch has just been announced by the ME—the buyer being Kenosha Motor Coach Lines.

For the present there will be no change in operation. The same cars will continue to run on their usual schedule; but as soon as the war needs taper off, a change to busses is expected. No other Milwaukee Electric interurban line is directly affected by this change.

Donald's comments merit reflection: "This is a case of a small line not being able to meet its competition, or else not caring to meet it. The C&NW *400* trains provide good service between Kenosha and Racine, ten miles apart, the North Shore gives darned fast service, and an excellent highway connects the cities.

"In contrast to these, the ME operates through Racine streets on what is practically a streetcar schedule, taking almost twenty minutes to move through the city. In Milwaukee also it drags through the streets. Although the North Shore makes Milwaukee in an easy 40 minutes from Racine, the ME takes twice as long, with resultant unpopularity among the riders.

"This seems to be another one of the old-timers that just isn't good enough to keep up. It is sad to see these lines go, but when their service is compared with steam train, auto, bus, or even another interurban, they just don't measure up. Two weeks ago I rode up to Milwaukee with the idea of seeing what the ride was like. I found that at almost every bend in the track, the car bumped and jolted passengers—a far cry from the luxury ride of the *400* to Milwaukee, or the North Shore service. Gosh, I like interurban lines. I ride them at every chance. But even I find myself swearing at the Kenosha route whenever I patronize it."

Well, Don, there's more than one way to skin a cat. We have known of instances in the past when companies that wanted to give up certain branches deliberately offered poor service to attain their ends. That's probably

Photos from Eric Prior, 1004 Jasmine Way, Clearwater, Fla.

MUNICIPAL STREET CAR SYSTEM of Copenhagen, Denmark prided itself on its equipment prior to Nazi occupation. Two of its most modern double-truckers appear at top. They are noiseless and use regenerative and magnetic track braking. Single truck car below is one of fifty-two like units

why you didn't regret the passing of certain old interurbans as much as you would have regretted it if they had tried to keep up with the times.

* * *

BOOMER TROLLEYS. Pvt. Steve Davidson, APO 417, Camp Shelby, Miss.—who, if you recall, first suggested we make a list of boomer cars—now writes that he has located plenty of second-hand equipment running in Birmingham, Ala.

All have been remodeled, he says. In some cases it's hard to recognize them, but he has found at least nine old types there. Cars 51-56 came from Chicasaw Shipyard at Mobile, Ala., where they were used during the first World War, and were bought by Birmingham Electric in 1930. Nos. 284-285

Photo from Bill Malcolm, Hamilton, Ont., Canada

BOOMER TROLLEYS at the Cornwall (Ontario) Street Railway barns. Back in the days when Number 22 was climbing the streets of hilly Jamestown, N. Y., the 34 was picking up fares at Wilkes-Barre, Pa.

came from Columbia, S. C., in 1922; Nos. 300-309 from Springfield, Mass.; Nos. 400-418 from Houston, Texas; Nos. 419-441 from Toledo, O.; Nos. 521-530 from Lorain, O.; Nos. 537-548 came from Stark Electric of Alliance, O.; Nos. 570-584 from Eastern Mass. St. Ry., and 585-596 from Wheeling, W. Va. Besides these, the regular streetcars make up a formidable fleet carrying on war duty in the "Pittsburgh of the South."

Cornwall, Ont., may well be called a paradise for boomer trolleys, according to L/Cpl. Allen Maitland, Kingston, Ont., Canada. Out of the 33 cars owned by the Cornwall Street Railway, practically none were ever bought new by the company; second-hand rolling stock was acquired from at least a dozen lines. Here's a Cornwall roster Allen sent to us:

Cars 1, 2 and 3 are sweepers bought from Montreal Tramways; the Kingston, Portsmouth & Cataraqui and Williamsport Rys., respectively.

No. 4 is a wedge plow, formerly numbered 12.

No. 5 is a line car.

Nos. 7 to 11 inclusive are electric locomotives bought from the NStC&T; the Chatham, Wallaceburg & Lake Erie; the Windsor, Essex & Lake Shore and the NStC&T, respectively.

Cars 13 to 24 inclusive are single-truck Birneys; 25 to 38 inclusive are double-truck city cars.

Nos. 14, 18, 21 and 23 have been sold to Levis Tramways.

Nos. 16 and 18 were bought from Toronto Transp. Comm.

No. 24 came from Wisconsin Public Service (Green Bay).

No. 25 was originally East. Mass. St. Ry. 6014.

Nos. 26, 27 and 28 were originally Jamestown St. Ry. 78, 84 and 86 respectively.

Nos. 29 to 32 inclusive were bought from Northern Texas Traction.

Nos. 34 and 35 were originally Wilkes-Barre Ry. 344 and 350.

The two latest cars, 36 and 38, were purchased from St. Thomas Municipal Ry.

The Cornwall line has no equipment numbered 6, 10, 12, 32 or 33.

Cars 13, 15, 17, 19 and 22 may have come from a line in New York or New Jersey. Perhaps some reader can verify this.

* * *

WHO can tell Victor Wagner of Chicago, now in the U.S. Army at Camp Davis, N.C., whether or not the Piedmont & Northern is the only road that uses trolley poles on its cars in place of a jumper, to conduct the juice between motors? Vic informs us that on a four-car P&N train two poles are on the wire, while two others are hooked together near the ends of the poles.

* * *

VACATION. "Thanks for printing that item in the January issue about my vacation-time job on the Portland Electric Power interurbans," writes Ed Belknap, Roosevelt Hotel, Indianapolis.

"I wonder if any other fellows had a similar opportunity or are planning to look for one this coming summer?" he adds. "I plan to spend my 1944 vacation just as I spent last year's. Everything turned out fine while I was working for the railway. I didn't overrun meets or hit any cows, but some careless railfan who was riding with me on one trip left a switch open in the yards and I caught hell for it. Guess I'll send him a rulebook so he can learn how a rail line operates."

Ed offers this idea: "Why not contact a fan in each state and have him take a standard road map and trace in all the electric lines, city and interurban, past and present, and then combine them into one big map? It seems that electric-line maps are sadly

Photo from Stephen D. Maguire

CALIFORNIA type car, one of the few in U. S. today: Pacific Gas & Electric No. 1 at Espee station, Sacramento

Photo from Chas. Butler, Palmyra, Pa.

SINGLE-TRUCK "combine" ran on Hummelstown & Campbelltown Street Ry. (later Hershey Transit) in early 1900s

BRITISH COLUMBIA ELECTRIC has its own waycars. Note archbar trucks

lacking. Most of us have only a hazy idea of where so many interesting networks used to run."

* * *

NEW ZEALAND. D. R. McQueen, 38 Nyatoto St., Khandallah, Wellington, N. 5, N.Z., sends us some data on New Zealand juice lines. He says there are seven electric railways on those islands—at Auckland, New Plymouth, Waganui, Wellington, Christchurch, Dunedin and Invercargill. Except for the 4-foot Wellington system, all are standard gage. All these lines are owned by municipal authorities. However, in Wellington a short cable line connecting that city with the adjoining town of Kelburne is privately owned.

New Zealand has no true interurbans, Mr. McQueen tells us, but in Auckland and Christchurch the lines extend beyond city limits to neighboring boroughs, still running on city streets. He goes on:

"New Zealand Government Railways operate multiple-unit trains, somewhat like those of American subways and els, on their seven-mile Wellington-Johnsonville branch, running through open country. I'd like to swap information on our lines with U.S. or Canadian fans and would appreciate any copies of *Railroad Magazine,* as it's impossible to get them here in wartime."

* * *

BRITISH COLUMBIA ELECTRIC. Interesting facts about this great interurban system come from Edmund E. Pugsley, veteran BCE conductor, 4430 Osler St., Vancouver, B. C., Canada. Ed belongs to ORC 267 and chairman of the Standard Railway Unions' Local Conference Committee. He is also the author of two dozen fiction stories, fact articles and true tales—on various phases of steam or electric railroading—published in this magazine during the years 1930 to 1941 inclusive.

The BCE main line, he tells us, was built in 1898 between Vancouver and New Westminster, 12 miles. BCE leased Lulu Island Ry. from the Canadian Pacific in 1905, Vancouver to Steveston, 15 miles. The Lulu Island's 10-mile Marpole subdivision, between New Westminster and Marpole, was opened in 1909 and at the same time leased to BCE by the Canadian Pacific.

Fraser Valley Ry. was built by BCE and opened in 1910, extending between New Westminster and Chilliwack, 64 miles. The Burnaby Lake Line, between Vancouver and New Westminster, 14 miles, was opened in 1912.

In 1905 the BCE ran through heavy timber, which has since become the residential section of Shaughnessy Heights. Most of the material for Shaughnessy Heights, a big CPR land project, was hauled over the Lulu Island Ry. in link-and-pin, single-truck, non-air cars, partly up a five percent grade, by electric motive power.

Early system of train orders on the BCE resulted in some nasty accidents; but wrecks became fewer after the staff system was adopted. Standard railway rules were put into effect on the line in 1910; since then the safety record has been remarkably clear.

The big racetracks on Lulu Island were served by the railway of that name in its early years; electric motors hauled seat-equipped flatcars. Every day of the season hundreds of people were carried in this rather primitive fashion, with a surprising lack of casualties. Later the road employed Canadian Pacific old-style coaches having cupola observation seats. And about 30 years ago single-unit passenger cars were in service. These had long-nose pilots like old-style locomotives.

Log trains operated extensively on the Fraser Valley Line in bygone days. Now through fruit trains operate nightly from the boundary line, a Northern Pacific connection, to Vancouver, a 60-mile run. In 1922 this company listed 500 freight cars, 13 express-baggage cars, 396 passenger cars (including city lines) and 18 locomotives. Now the freight-car list is small, as CPR equipment is used largely for local business.

The BCE has interchanges with the Canadian Pacific, the Canadian National, the Great Northern, the Northern Pacific and the Milwaukee, not to mention the Pacific Great Eastern. In 1913 the BCE's freight tonnage was about 450,000. This dropped in 1922 to about 320,000 but as a result of the present war it is now about double the figure of 40 years ago. In 1943 the road carried well over 100,000,000 passengers.

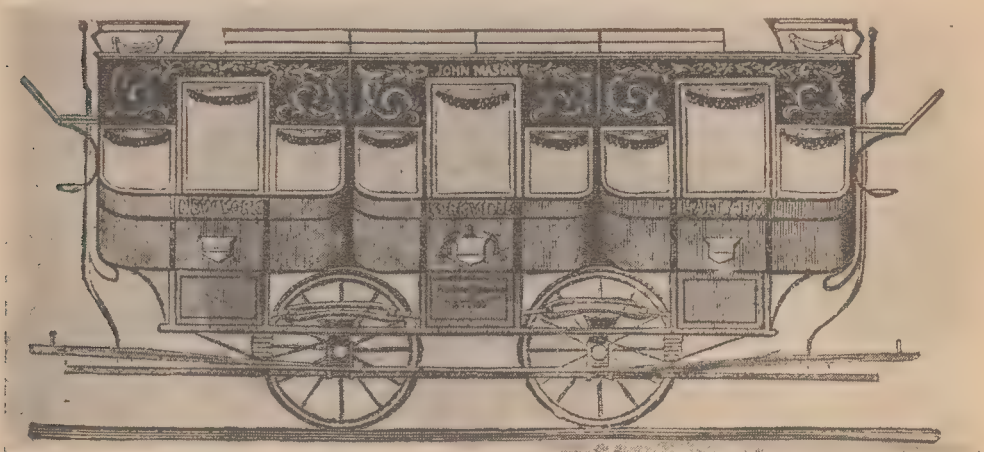
A high spot of BCE history came in 1912 when the Duke of Connaught, then Governor General of Canada, toured the entire interurban network in a luxurious coach especially fitted out and named for him. Extraordinary safety precautions were taken. All switches were spiked in advance of the trip and a pilot car ran ahead of the Duke's equipage.

Pugsley also tells us about a complete 80-car circus train of four sections which was handled over the BCE in January, 1939.

"This aggregation came to us from the Great Northern," he says. "We shot it over the road at night between our first and last passenger trains. Down one night, back the next. On the following morning, Sunday, our first passenger train found a two-foot break in the rail, caused by the last heavy coach train of the circus. This shows how narrowly the circus train escaped being ditched.

"In 1942, when Jap raids on our West Coast were threatened, we moved nearly 5,000 Japs from Steveston military area to the interior of this province. We conveyed the little brown people daily from Steveston to Vancouver in CPR coaches connecting with regular trains from Vancouver for the East. All this was done in between regular hourly service, with no delay or other grief. A freight motor hauled as many as four coaches a day."

This winds up the fragmentary remarks which Conductor Ed Pugsley has to make about his road, of which he has good reason to be proud. If enough readers express a desire to read an occasional true tale in this department, we may ask Ed to submit one to start the ball rolling.

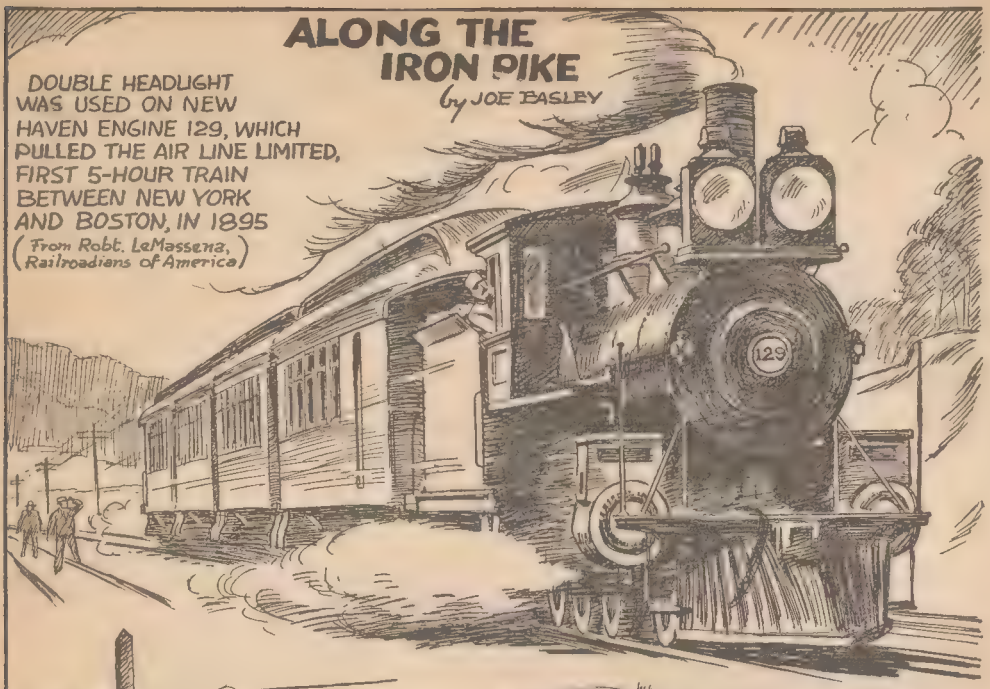


Old Print from the Railroadians of America

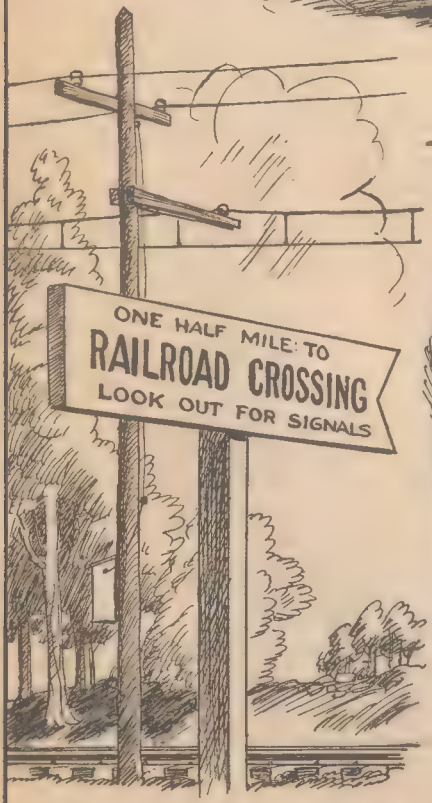
NOT a streetcar, but often listed as such. This coach was built by Stephenson for the N. Y. & Harlem Railroad

ALONG THE IRON PIKE

By JOE BASLEY

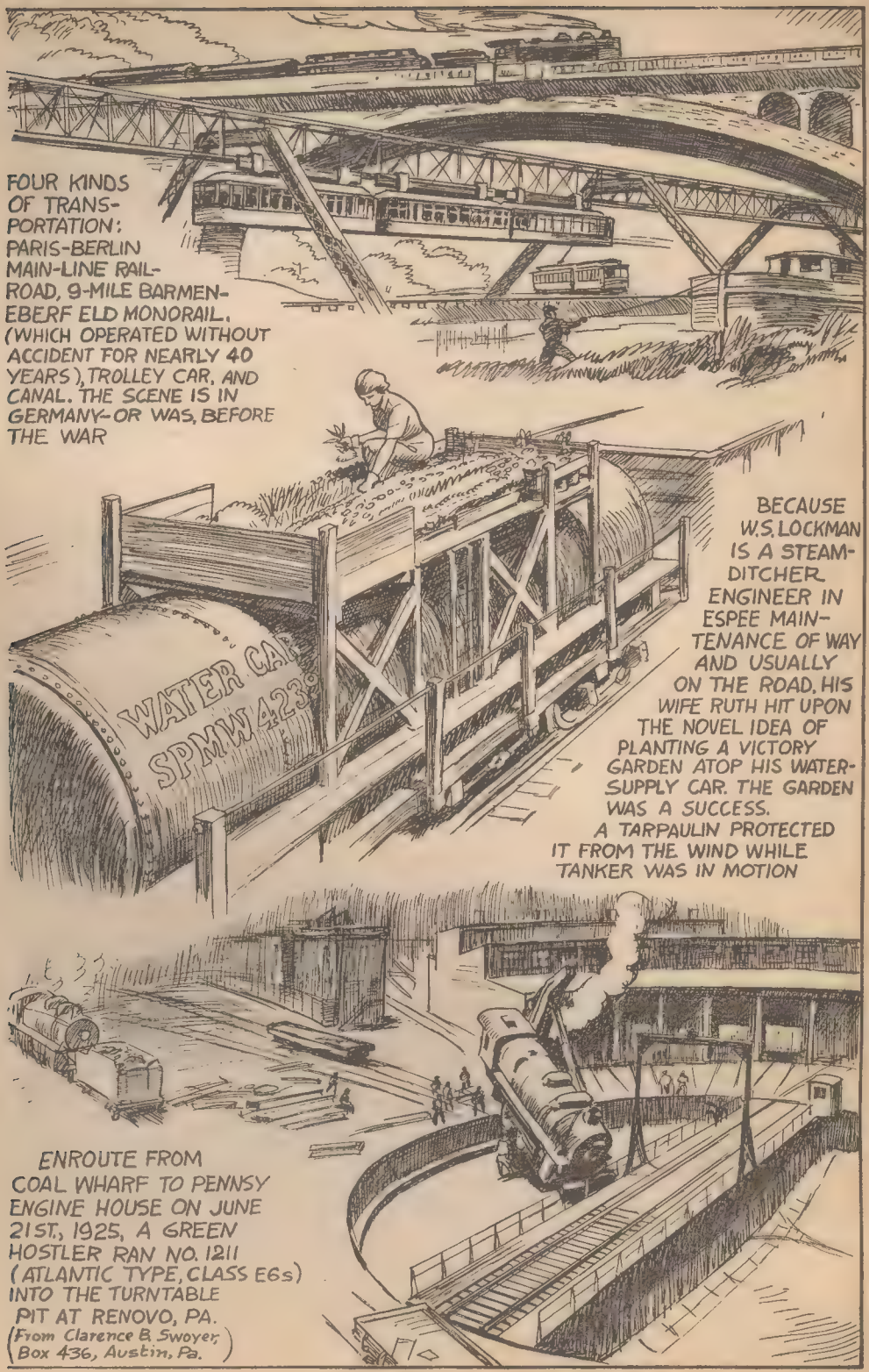


DOUBLE HEADLIGHT WAS USED ON NEW HAVEN ENGINE 129, WHICH PULLED THE AIR LINE LIMITED, FIRST 5-HOUR TRAIN BETWEEN NEW YORK AND BOSTON, IN 1895
(From Robt. LeMassena, Railroadians of America)



PLENTY OF WARNING! THIS NOVEL SIGN IS LOCATED ON THE PACIFIC ELECTRIC AT RIVERSIDE, CALIF.
(From Pvt. Raymond E. Younghans, Medical Sect, SCU 1967, Camp Haan, Calif.)

HAS ANY OTHER CONDUCTOR NOW IN SERVICE PILED UP MORE SENIORITY THAN S.J. SNYDER, 67 YEARS WITH THE ERIE? SNYDER IS PUNCHING COMMUTATION TICKET OF MISS CAROL EICHNER, MONTCLAIR, N.J., WHOSE MOTHER AND GRANDMOTHER ALSO COMMUTED WITH HIM IN BYGONE DAYS



FOUR KINDS OF TRANSPORTATION: PARIS-BERLIN MAIN-LINE RAILROAD, 9-MILE BARMEN-EBERF ELD MONORAIL, (WHICH OPERATED WITHOUT ACCIDENT FOR NEARLY 40 YEARS), TROLLEY CAR, AND CANAL. THE SCENE IS IN GERMANY—OR WAS, BEFORE THE WAR

BECAUSE W.S. LOCKMAN IS A STEAM-DITCHER ENGINEER IN ESPEE MAINTENANCE OF WAY AND USUALLY ON THE ROAD, HIS WIFE RUTH HIT UPON THE NOVEL IDEA OF PLANTING A VICTORY GARDEN ATOP HIS WATER-SUPPLY CAR. THE GARDEN WAS A SUCCESS. A TARPAULIN PROTECTED IT FROM THE WIND WHILE TANKER WAS IN MOTION

ENROUTE FROM COAL WHARF TO PENNSY ENGINE HOUSE ON JUNE 21ST., 1925, A GREEN HOSTLER RAN NO. 1211 (ATLANTIC TYPE, CLASS E6s) INTO THE TURNTABLE PIT AT RENOVO, PA.
(From Clarence B. Swoyer, Box 436, Austin, Pa.)

LONG ISLAND Forney-type engine. Seated at the cab window was Engr. Fred Bender, whose grandson, Ray Dexter, 107-35 92nd St., Ozone Park, N. Y., loaned us this old photo

On *the* Spot

Rails and Fans Sit in with the Editorial Crew to Swap Experiences, Offer Ideas and Settle Arguments

Ralph Budd

BECAUSE of an act of kindness by Ralph Budd in 1931, R. J. Heinen, cashier of the Farmers Savings Bank, Halibur, Iowa, says he will always have a warm spot in his heart for the Burlington, of which Mr. Budd is President. At that time Mr. Heinen was on a vacation in Minnesota and had a cottage next to one occupied by Budd, who was then big chief of the Great Northern.

"One evening," he writes, "I left my boat tied to the shore, intending to put her into the boathouse the following day. But when morning came, I was unable to pull the little craft ashore; rain had swamped her. I then conceived the bright idea of backing my car down there to haul her out. This didn't work. My car was mired in sand. The harder I tried to get it away, the deeper it sank.

"I asked Mr. Budd to help me out. He responded with his Pierce Arrow. As an old civil engineer, he knows how to take advantage of leverage, so he had me free in a hurry. I have never forgotten this incident. As a result, whenever the manager of our local grain elevator brings a bill-of-lading into the bank where I work, for a shipment of C&NW origin, I ask him to specify CB&Q billing at Council Bluffs, Iowa. I feel indebted to the President of that road."

* * *

OLDEST DEPOT. "Doc" Woodward's comments *(Jan. issue)* on "the world's oldest building used as a railroad station" at Cuautla, Mexico, recalls to Frank P.

Savage, Box 1, Chiloquin, Ore., pleasant memories of years he spent south of the border.

"In 1908," Frank writes, "I was employed as train dispatcher in that very structure at Cuautla, State of Morelos, helping to move many a three-engine sugar train up the 50 miles of 4 per cent grade to Zoyocingo, highest point on the Morelos District of the three-foot-gage Interoceanic Railroad, en route to Mexico City."

The old edifice, according to Frank, has solid cement walls 3½ feet thick and covers an acre and a third. It was built in 1547—55 years after Columbus discovered America!—by a widow named Calderon in memory of her husband. Originally a Spanish church, then a convent and occasionally a military fortress, it is now a railroad depot.

If ghosts of the past can stalk ancient landmarks, that station sure is haunted. Mexican Federal troops were bottled up within its grim walls about 80 years ago in connection with the coup of Emperor Maximilian, sponsored by Napoleon III of France. For 72 days their supply of food and water was cut off. Few of the beseiged men survived. Some escaped through a long gloomy tunnel. Frank Savage visited the tunnel in 1908.

When the Mexican Government took over much church property, this building was included with the rest, and it remained vacant many years. At length the Interoceanic Railroad reached Cuautla and bought the old edifice for the equivalent of $225,000 in U. S. money. They built a wye through a hole in the massive wall and along the west side.

"In April, 1908," Frank goes on, "we had two severe earthquakes. The depot rocked like a cradle but withstood the shock—as it had done many times before, and a few times since. During the revolutionary period of 1911-'13 fierce battles were fought in and around the former church. Cuautla has ideal temperature, never known to have dropped below 65 degrees above zero nor exceeded 85. The variation during the year I was there was only 13 degrees. Beautiful foliage used to grow in the station courtyard. Even in my time there were huge banana trees bearing delicious fruit.

"Today, as Espee operator at Chiloquin, Ore., I am just another old-timer back in rail service for the duration. When the war is over I'll return to my little cabin and workshop in the piney hills of Northern California. There, in the twilight hours, I'll

CROSSING watchman, New York Central

THIS PICTURE by Linwood W. Moody of Union, Maine, and others like it will become increasingly rare as time goes on. We see here a one-car train on the Sandy River Line which, until its abandonment about ten years ago, was America's longest two-foot-gage pike. Another Maine road, the recently-abandoned Monson, was the last common carrier of that gage—unless we include (as Stanley Griffith Jr. of Ashton, Ill., reminds us) the electric freight subway still operated by the Chicago Tunnel Corporation

be thinking of the youngsters of tomorrow who will carry on, as we once did, knowing well they are making good."

* * *

DOUBLE-ENDERS. "Reading Charlie Fisher's article in Dec. '43 issue reminds me that one day in 1889, when I was a boy, I saw a double-ended locomotive pass the old Central Pacific depot at Lucin, Utah," recalls Albert A. Ohlson, 722 Monterey St., Vallejo, Calif., "and the lightning slinger told me she was bound for the McCloud River Lumber Co. in California. This antedates the double-ender which Baldwin built for the McCloud River outfit in 1897, to which Mr. Fisher referred. Who can supply information on her?"

* * *

SIXTY-TWO years with the same company and at the same place! Such is the rare—and maybe unbeatable—record of C. J. Cawley, we learn from Everett A. Peteron, 409 3rd St. E., Willmar, Minn. Everett has 21 years of rights as brakeman and conductor on the Gerat Northern, running between Willmar and Sioux City, Iowa.

"This line runs through my home town of Pipestone, Minn.," he says, "Pipestone is also the home of Mr. Cawley."

On November 27th, 1879, the Chicago, Milwaukee & St. Paul construction train pulled into Pipestone, then a frontier hamlet of but two or three buildings. With this first train came C. J. Cawley, a boy of 17. The youth was Pipestone's first agent for the Milwaukee and served as agent there continuously from that date until he was retired November 1st, 1941, at the age of 79. He watched Pipestone grow to a flourishing town of 5000 or more people, with three additional railroads coming into it.

Cawley now resides with his daughter, Mrs. C. Rebman, at Austin, Minn. At the time of retirement he was the oldest member of the Milwaukee Veterans' Ass'n. His memory is clear, and our correspondent has been privileged to listen to many tales the old fellow told of primitive railroading. We wish he'd send us some of those reminiscences for publication.

* * *

JOHN W. SCANLON, a railroader of Newark, O., who died in 1908—does any old-timer remember him? If so, write to his daughter, Mrs. Mary Scanlon Murasko, 201 Western Ave., Mansfield, O.

A MINISTER rode in a Colorado Midland engine cab on January 9th, 1911, to conduct funeral rites for J. Baxter Embree, a CM official, at Woodland Park, Colo., about midway between Colorado Springs and Cripple Creek.

Pastor Stewart

"At that time," writes the Rev. George B. Stewart, now residing at 167 Salem Ave., Dayton, 6, Ohio, "I was pastor of the First Christian Church, Colorado Springs, and the novel ride was arranged for me because no other conveyance was available and the distance was much too far to journey afoot. I occupied the fireman's seatbox, clinging tightly to whatever I could grasp as we rounded curves and sped through deep cuts, while whistles and bells echoed through the snow-covered Rockies.

"The Embree home was near Woodland Park depot. As I climbed down from the cab, my engineer took out his watch and said: 'This engine will be back at exactly'—he stated the time—'and I will give a whistle signal loud enough for you to hear. I hope you have sufficient time for the ceremony. The train dispatcher, not the undertaker, bosses your end of the services.' Knowing the time limitation, I acted accordingly and did not accompany the body to the cemetery. Has any other clergyman had a similar experience?"

* * *

LINE TROUBLE. The true story of a cloudburst in September, 1896, is told by Charles Squires, 4808 Melrose Ave., Oakland, Calif., who was then employed as a lineman on the old South Park Line with headquarters at Denver, Colo.

"I'll never forget that very heavy rain," Charlie reminisces. "In and around Morrison, at the end of a 17-mile branch out of Denver, at least 17 men, women and children were reported drowned. The station agent there stayed on the job at the risk of his life, bending over the telegraph table to keep communications open, while the water was rising on all sides. At length he was taken out through a window into a rowboat.

"I was sent to Clear Creek Canon, through which ran the slim-gage line of the old Union

Canadian Pacific photo by Nick Morant

15-YEAR-OLD TELEGRAPHERS. (Above) Russell Light was a Canadian Pacific relief operator for several weeks at Vernon, B. C. (Next page) Roy L. Shriver, 1727 13th St., Des Moines, is a qualified op on the Illinois Central, Iowa Division, holding seniority on the extra board, subject to week-end and vacation calls, and can handle interlocker plants. His father is a Chicago Great Western tower man

Pacific, Denver & Gulf that extended to Silver Plume and around the famous Georgetown Loop. Assembling my tools and not forgetting a couple of sandwiches, I set out for my destination on an extra work train. This train had a Bridge and Building outfit and several cars loaded with ties, rails and bridge stringers.

"Well, we pulled out of Denver at midnight. En route, we made frequent stops to crib up under the ties to enable us to proceed. At about 5 a. m. we were approaching the station of Golden, Colo., when the eagle-eye stopped again. He had found a good place to build a bridge—the old structure was washed away. After some delay, our B&B men got a bridge stringer long enough to span the gap.

"Entering the depot, I saw the office and other rooms graded with six or eight inches of sand and silt. I asked for a man to help me. This request being granted, I loaded

him with a shovel and a coil of wire. We slogged along about half a mile when we noted that all ties, rails and roadbed were gone and the turbulent muddy waters of Clear Creek flowed over the place where the track had been.

"By this the road had become too rough for my helper, so he said good-bye and began hiking back to Golden. I struggled ahead alone, clinging to the sides of the canyon by scrub trees, bushes and rocks—anything I could grab to keep me from falling into the creek. Normally, there were four wires up this canyon, but I had to sacrifice two of them in order to get material with which to repair the other two.

"Three miles up the canyon there had been a steel span, on which the track crossed to the other side of the creek. The darned thing was now standing on one end in the middle of the stream! A short distance further on I came to a place where the water forced its way through a rocky gorge about ten feet wide. A man standing on the other side was trying to holler to me above the roar of the torrent, but soon gave it up and resorted to the sign language. He had a railroad tie, which he held by one end and let fall toward me to show that it lacked two or three feet of being long enough to bridge the rapids.

"Catching on to what he meant, I scrambled up the slope and dragged down a piece of burned tree that I thought would reach across. It did. The marooned stranger caught the end of the tree that fell toward him and as I held my end he 'cooned' his way across. Then he held the makeshift bridge while I went over. Thus we both got going again on our respective journeys.

"After so many years, I can't recall how many spans of line were down, but I know there were plenty. I had left Golden at 5:40 a. m.; and at 8 p. m., after what seemed like endless hours of work, I had two wires giving service through the canyon to Roscoe. My two puny sandwiches had been devoured five hours before and were now a dim memory. I no longer had a food supply, nor any liquid except the brownish flood water. Drinking from that stream must have given me typhoid fever, for it took me 14 weeks to get rid of that illness in a hospital to which I went after getting back to civilization.

"About three years later I was working as a freight brakeman through this same canyon."

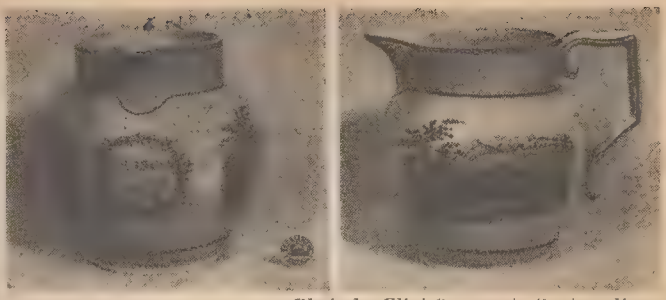


Photo by Eliot C. French, Canton, Mass.

UNUSUAL HOBBY. Railroadiana in glass and china ware are collected by Payson C. Francis, member of the Railroadians of America, 15 Goodnough Rd., Chestnut Hill, Mass., who now has about 100 specimens

* * *

RECOLLECTIONS of bygone days tinged the correspondence which flooded Frederick G. Fletcher, Norwood, N. Y., after publication of his true tale "He Forgot the Order" *(Oct. '43)*. This story covered an incident that occurred in 1902 when he was a Northern Pacific op at Big Timber, Mont.

One letter came from F. A. Eldredge, R. D. 7, Lona Road, Knoxville, Tenn., who had preceded our author in service at Big Timber by several years. Another was written by J. H. Monaghan, Port Orchard, Ore., former NP engineer, who had been a personal friend of two men mentioned in the tale, Condr. Frank Scott and Supt. Dan Boyle.

An old-time dispatcher criticized the writer of "He Forgot the Order" for not telling the Super about the order after the danger had passed, and

Roy L. Shriver

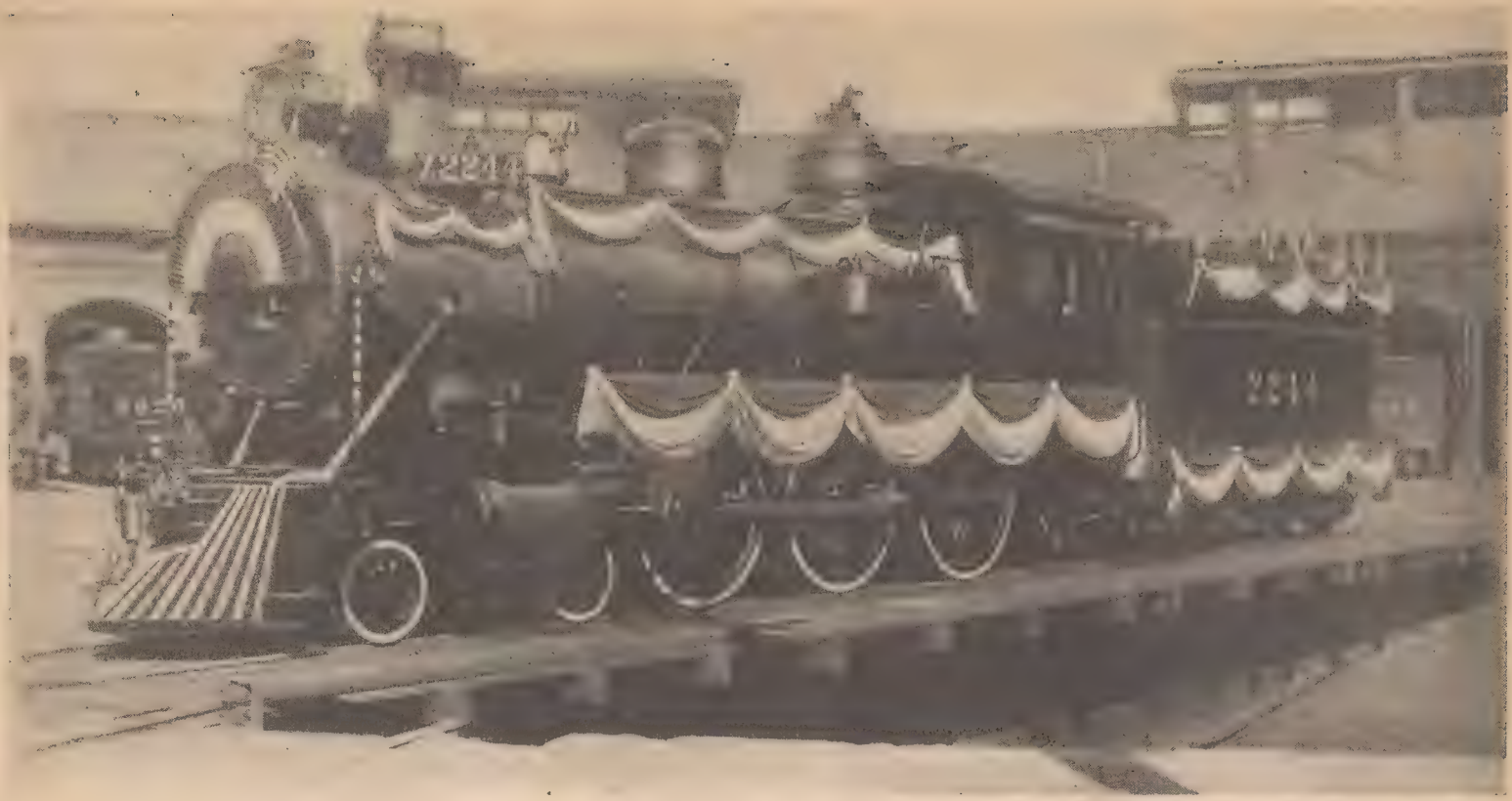


Photo from David L. Joslyn, 2164 Castro Way, Sacramento, Calif

FLAG-DRAPED FOR A PRESIDENTIAL SPECIAL. Southern Pacific No. 2244 is shown on the table just before she pulled a train carrying William Howard Taft, Chief Executive of the United States, and his party, thirty-odd years ago. Built by Cooke in 1895, this festive-looking old girl had 20x26-inch cylinders and driving wheels 63 inches in diameter. She weighed 112,000 pounds on her drivers, total weight 142,350 pounds, and boasted 25,260 pounds tractive effort

added: "The worst thing I had to contend with in my dispatching days was furnishing gray matter for numbskulls."

Mr. Eldredge's letter related details of two mixups with bandits at Big Timber and a passenger train robbery, all within a week. Train No. 4, the very train which figured in Frederick's tale, was held up near Reed Point, two stations east of Big Timber. There were five armed horsemen in the gang. One outlaw forced the fireboy to cut off the engine and run her ahead a mile or so, while the others went through the mail and express cars, coaches and Pullmans. The express car yielded only $52 from a local safe which Eldredge had handed on at Big Timber. However, a much larger sum was collected from the passengers, including President Pillsbury of the famous Pillsbury Mills, Minneapolis, and his wife. When a freight train suddenly appeared on the scene, the bandits remounted and headed north. All five were eventually caught, in several different states.

Will the present op at Big Timber tell us whether or not there is still a bullet hole in the window sash? It was made by a gunman while Eldredge worked there and was later observed by Mr. Fletcher.

* * *

JOE EASLEY knew of only one railroad passenger station built over a brook—i.e., the Erie's Llewellyn depot at West Orange, N. J.—at the time he drew February's *Along the Iron Pike*. He is now hearing of others. John B. Reshke, 690 8th Ave., New York City, tells him that the Lehigh Valley station at Allentown, Pa., straddles a brook, while the LV depot at Court St., Rochester, N. Y., projects out over the Genessee River. And Robert McKeand, a New York Central stenographer of 15 Railroad Ave., Tuckahoe, N. Y., says the Central's depot at Brewster, N. Y., also is built over a stream.

And from John A. Schwartz, former Pennsy fireman, Box 7, New London, Conn., our artist gets word that the Big Four station at Metamora, Ind., extends over an old canal, through which water still flows. However, the Big Four discontinued passenger service at that point in 1937. John drove the Railway Express Agency truck that was put in service to haul mail and express there when the train was pulled off.

TUNNELS OF LOVE. That's what two 600-foot bores on the Missouri Pacific just west of Kirkwood, Mo., were called years ago when accommodation trains were run through them en route to Merimac River resorts. The trainmen didn't bother to turn lights on while going through the darkened passages. Fellows and girls are said to have used this situation to good advantage, and the sections were given a romantic name.

These tunnels, Arthur informs us, are now being eliminated, as the MoP is completing its double track between St. Louis and Jefferson City. The old tunnels, cut through solid rock, would be a rather tight fit for the new 2100 and 2200 class engines; so they will be by-passed. There'll be some relocation of the line, as the "tunnels of love" are on a grade where the right-of-way crosses over from the Mississippi River valley into the Merimac River valley.

* * *

EMBARRASSING MOMENT. About 20 years ago, according to P. J. Newman, Missouri Pacific chief clerk, 505 Glenmar St., Monroe, La., Engineer Luchalew was running a Missouri Pacific train of 8 or 9 cars, his engine being a 100 class job with two air-pumps. The train, No. 105, regularly made a station stop at Swartz, La., about 9 miles north of Monroe, La. A couple of tramps, riding between the tender and the first baggage car, had secretly cut off the air-whistle, disconnected the chains and uncoupled the engine.

When the conductor gave the highball, Luchalew supposedly started his train. Instead, the air-hose kinked and, with the air of the double pumps, left sufficient pressure in the train-line to hold the engine brakes just tight enough to keep the hogger unaware that he had lost his train. But the conductor saw instantly what had happened. Rushing into Swartz station, he had the operator break the news to the dispatcher. DS then got in touch with Superintendent A. R. Taylor (since deceased), who grabbed his hat and hightailed it to the Monroe depot to await the arrival. The scene that followed would have been worth a day's pay to witness. Engineer Luchalew rolled into town

FIVE YEARS BEFORE the Saugus, Calif., wreck pictured on our next page, the above shot of the engine involved, Southern Pacific No. 3690, was made at Los Angeles

and made a well-controlled station stop. Even before the wheels ceased turning, Supt. Taylor was down on the platform under the engine cab, hollering:

"Where in the hell is your train?"

The amazed hogger, looking back, discovered that all he had was his engine. His embarrassment was heightened by the fact that it was a late Sunday afternoon and the Monroe residents, young and old, had turned out in large number to see the train come in. Luchalew never did live down that one. Where he is today, our correspondent does not state.

* * *

KEYS, nearly 500 of them, including a few railroad switch keys and others, long and heavy, that are supposed to have unlocked Mexican dungeons, comprise the unique collection of Gilbert R. Choate of Margaret, Texas. Gilbert has been a "rail" for the past 15 years. His most cherished specimen is a key of the KCM&O Railway, on which his career started. He also has some interesting photos of Santa Fe wrecks and washouts. Last August 4th was an exciting day that Gilbert will never forget.

"I was operating Santa Fe pile-driver No. 199450 at Shallowater, Texas," he recalls. "This machine, not including the timber, weighs about 140,000 pounds. After taking siding to let train 91 go by, I was returning with the pile-driver to the bridge. As it was only a short distance and no wires interfered, I left the leads raised and the side-rods or turnbuckles off, these being designed to prevent the leads from slewing, and depended upon the slewing brake to hold them. Well, it happens that on this machine the same lever is used to engage both the traveling gear and the slewing gear which reversed. Some friction fingers shook loose and started the leads slewing, but as I was running her in reverse I did not notice it until I heard a shout from the brakeman on the machine. Then I made a quick application of brakes, barely stopping in time to avert a serious accident. You can imagine my feelings at the time, seeing the leads turned about 60 degrees and knowing that the 7000-pound weight of the great hammer was in the leads."

* * *

"I WONDER how many fellows have lived over their first trip as often as I have," says Ray Nicholls, R.D. 3, Oneonta, N. Y. Ray's experiences as student fireman on the New York Central occurred 26 years ago—as related in this department last month—"but," he comments, "it doesn't seem that long." He adds:

"On my first return trip from Toledo to Cleveland I had a swell engineer and an engine that burned all her coal in the front end. The master mechanic, who had hired me, was waiting for us in Cleveland. He looked at the clock, the gage, and then at the fire, which was thin and bright. He asked the

NUMBER 3690 was ditched by running through a derail on March 25th, 1938, but nobody was killed or even hurt

hogger about me. The hogger lied like a trooper, saying I was the best fireman he'd ever had. Just as we got a signal from the rear, the M.M. told me I'd better put a fire into her, because it was a hard pull up to the icehouse. Well, I sprinkled the coal on one side and stopped. The official asked what I was waiting for. I replied, 'I don't want to make too much smoke in the city,' to which he said: 'Hell with the smoke! Put your fire in!'

"Later I helped to lick the Kaiser, in World War 1. After getting out of the Army I worked for a while handling express at North Station, Boston; and then I went into streetcar service at Waterbury, Conn. Tell you about it next month."

* * *

L&N VETERAN ENGINES. We hear a lot about the new power and the great work it is doing, but how about the old-timers which have left their rusty sidings and gone back to the job of wheeling passengers and freight?

C. B. Lamb of Decherd, Tenn., calls attention to seven old girls of the NC&StL, ten-wheelers numbered 280-286, which were built originally as 4-cylinder balanced compounds in 1905. These seven were used in main-line passenger service until the middle 1920s. Then they were demoted to branch lines, mostly on the Huntsville Division. After hauling mixed trains from 12 to 15 years, they were displaced by low-wheeled Consolidations. Just as officials were about to scrap the faithful seven, the war brought increased business. The 1905 breed of iron horses were overhauled and, according to Mr. Lamb, are now doing a fine job of hauling passengers, troop specials and local freight. It would do your heart good to see these old-timers step along proudly, serving with their modern sisters—on the main stem!

* * *

N&W RAILWAY THE LUCY DALTON, built in 1873 for the St. Lawrence & Ottawa, pictured in our Nov. '43 issue, was described as "one of the relatively few engines named after women." Among others we know of in this category are those called to our attention by Thomas Kirkpatrick, 1004 Haverhill Road, Baltimore 29, Md. Two

such girls ran on the Chesapeake & Western, a Norfolk & Western branch in Virginia. Both were small passenger engines: No. 101, a Baldwin, the *Fannie W. Jackson,* and No. 102, built by Richmond, the *Lizzie W. Allison.* Like the women for whom they were named, these machines were fine-looking in their day, about 50 years ago. Unlike the women, they had Russian steel casing, with brass bands around the same. No. 101 was a showpiece at the great Columbian Exposition, Chicago, in 1893.

Tom, now a retired locomotive engineer with 42 years' service, received his start by riding along with the crew of the *Fannie W. Jackson.* No wonder he remembers her.

"I could furnish quite a bit of history of the 101, the 102 and the C&W," he offers, "as well as my own experiences running on short lines in days that will never come again."

"No. 101 was mounted on rollers at the Columbian Exposition and operated by *Fannie W. Jackson,* the girl for whom she was named," writes Capt. C. G. Price Jr., U.S. Army, Supt. of Rail Transport Shops, Holabird Depot, Baltimore, Md.

"Many years later," he adds, "Fannie's son rode in that engine's cab. I now have the 101's bell and throttle at my home in Harrisonburg, Va., where I was a CW mechanical engineer before entering the Army."

* * *

ACE is a short-legged fellow with curly black hair. Yes, he's a mongrel, but the New York Central freight-house gang at Elkhart, Ind., wouldn't swap him for any pedigreed pup in the Blue Book. Plenty of men would miss that small friendly half-breed if *Ace* should ever fail to show up on the second floor at 7 a. m., like he has been doing every day, including Sundays, for nearly four years.

We can see him now, in our mind's eye. "Starting out by the roundhouse," to quote the NYC *Headlight,* "he pads deliberately down the tracks to the freight house. Yard-

Photo by Railroad Photographic Club, 47 Royal St., Allston, Mass.

WITH her Pacific-type engine, No. 2580, emitting a cloud of black smoke, the Vaudreuil commuter evening train on the Canadian Pacific leaves Windsor station, Montreal

engine crews have come to recognize him and his daily schedule, which is just as regular as their own. Promptly at 7, as faithfully as if he were punching a time-clock, *Ace* climbs the stairs and checks in for his day's round of duty at the freight house."

Just you *try* to buy that little black dog, mister! He ain't for sale.

* * *

"WHEN and by whom were hoops first used to hand up train orders?" asks A. L. Foster, 1119 E. 11th St., Medford, Ore.

"One night in 1904," he writes, "when I was working on the Rock Island's Cedar Rapids Division and before I'd ever seen or heard of train-order hoops, the thought came to me that I could utilize wooden sugar-barrel hoops for such a purpose. I placed the orders in the break of the hoop and thus delivered them to members of train and engine crews, instead of using the established method of passing them up by hand. The new scheme worked nicely and helped to speed the trains."

We hope some old-time ops will get in on this discussion. Did anyone use order hoops before 1904?

* * *

"SWITCHBOARD OPERATOR" is the nickname of H. P. Leland, 610 N. Washington St., Kokomo, Ind. It was given to Mr. Leland at the time he was a greenhorn op-agent at Grelton, O., on what is now the Nickel Plate's Clover Leaf District. He recalls that the station was an old boxcar divided into three compartments for the office, waiting-room and freight house.

"I had never been grilled on switchboard operation," Leland writes, "and this caused me no end of embarrassment. On the evening of the first day on my first job, I was eating supper when the phone rang and somebody asked for the 'ham operator.' I answered. The op in the yard office at Delphos, O., thirty miles distant, yelled: 'For Pete's sake, Leland, run back to your office and cut in your switchboard, so we can move those trains you've been holding up for an hour! There's no company phone for the men to use and they're in a hell of a jam.' One guess—did I waste time getting back to that switchboard?"

MAX J. MOORE'S "3,000,000 Miles on the BR&P" *(Sept. '43)* is still drawing comments. The following comes from C. C. Campbell, 207 S. Edison Ave., Tampa, Fla.:

"Mr. Moore's remark about a conductor operating a locomotive reminds me of many days in the early 1900s on the Monon's South Division when I saw Condr. John Cole on local freights Nos. 41 and 42 take over the throttle from Lou Sicer, regular hoghead, when they were running late. I would not say that John was a better engineer than old Lou, but he was younger and pretty much of a daredevil. John pounded their engine, old 94, for all she could do, cussing because she couldn't run faster."

Another commentator is L. P. Harrington, 2134 S. Cincinnati Ave., Tulsa, Okla., who received the September *Railroad Magazine* in an unusual manner. Says he:

"My son-in-law is a lieutenant in the Army. His commanding officer met my daughter. She mentioned that I'd been employed by the BR&P, whereupon the officer gave her the magazine containing Moore's life story, and she sent it to me."

Max Moore resides at Bradford, Pa. Mr. Harrington spent his boyhood days there and his father was president of the City Select Council. Our correspondent remembers the sudden death of Hermann, the magician, mentioned in Moore's article.

He adds: "An uncle of mine was private secretary for years to George E. Merchant, BR&P General Manager at Rochester, N. Y. Through him I landed a job under the construction engineer in 1898, and this started me on a rail career. Recently I read Moore's article with great interest."

* * *

FLOOD occurring in August, 1940, practically destroyed the Linville River Railway, which extended from Cranberry, N. C., to Boone, N. C. This fact is contained in a letter from W. H. Blackwell, Vice President and General Manager of the 34-mile East Tennessee & Western North Carolina, a unique freight road of three-foot and standard gage that handles standard-gage cars over the entire line.

"The LV Railway was an affiliate of the ET&WNC Railroad Co. and for all practical purposes they were operated as one line,"

Mr. Blackwell explains. "We had a number of freight cars stranded in Boone by the flood and they were all brought out by truck to Cranberry. Another affiliate, ET&WNC Transportation Co., operates a truck line in this section. The method used to get the cars moved was practically the same as the usual truck-semitrailer arrangement. First we removed the car body from its trucks. Then we put an ordinary motor-truck axle and wheels under the rear end of the car. After that we fastened an ordinary motor-truck fifth wheel under the front end of the car, which then rested on the truck tractor—and this arrangement operated just like the ordinary truck-semitrailer."

Thus the railroad car trucks were loaded on an ordinary flat-bottom truck and hauled to Cranberry. There they were put on the track, after which the car bodies were placed on them in the uual manner. We've heard of plenty of cases where motor-trucks were transported by rail, but no other instance a motor-truck hauled railroad cars.

* * *

"AUSTRALIA'S 3½-foot-gage Queensland Railway has engines whose pip-squeak whistles still ring in my ear, although a year has passed since I heard them," reports Sgt. William T. Marnell, 11024281, 13th Bomb. Sq., 3rd Bomb. Group, APO 503, c/o Postmaster, San Francisco, Calif.

Bill tells us that two years ago, when he first landed in Australia, he rode from Queensland's capital to the cattle country about 800 miles north.

"We traveled in the railway's finest equipment," he explains, "and, believe me, it was nothing like Pullman service. None of the carriages (cars) on our train were sleepers. For two nights we snatched what shut-eye we could get in day-coach seats and on the floors, in total darkness because of blackout.

"With all the windows wide open, for the weather was hot, and smoke pouring in like a fog, we were worse-looking than hoboes riding the rods. But I'm not complaining—it was a great experience! In some places the track snakes around hills. Sitting in a rear carriage, you can see the pig pulling up the grade ahead, with black smoke pouring from the stack."

There's no highway competition in Queensland, Bill points out; in fact, there are few highways. One oddity of the line is

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April ARGOSY on sale March 10

This photo and one on contents page from C. W. Witbeck, Box 2501, West Jackson, Miss.

CURLY-LOCKS, perched on the tie pile, must be a railfanette. Note her absorption in this American-type engine of the old Savannah, Florida & Western (Plant System). She could probably tell you that No. 45 was built by Rogers in 1879, with 16x22-inch cylinders and 61-inch drivers

that no train operates with matched equipment; all coaches seem to be different in style and length. This applies especially to the goods (freight) trains, on which most of the wagons (cars) are the four-wheeled variety. In northern Queensland the usual passenger service consists of a second-class carriage coupled to the rear of a goods train.

As for "the little red caboose," she just doesn't exist in Queensland. The last wagon in a goods train has a small compartment in which the guard (brakeman) performs his job of watching the rear. Bill doesn't know what they call their couplings, but to him the apparatus looks like "a modern version of the link-and-pin." Each Australian state has its own gage, like the situation in America prior to the Civil War.

"But don't get me wrong," Bill concludes. "All Aussie railroads aren't like the one I described. Some have equipment as modern as America's."

* * *

"LIFE OR DEATH hung on a split second in an accident to which I was the only witness," writes C. A. Cunningham, Box 523, Auburn, Wash. "The date was October 3rd, 1923. I was then employed by the Northern Pacific. In fact, I've been with the NP since June 12th, 1912, and have worked over every foot of track from Sumas to Seattle, Tacoma and Spokane, and have been financial secretary of B. of L.F.&E. Lodge 895 since it was organized in 1921."

Cunningham has had some unusual experiences as fire-cleaner, hostler helper, machinist helper, callboy, call clerk, grease monkey and hostler. The one he is narrating now happened on Extra 4009 West, with Frank Davis as engineer. Nobody was to blame, only the noise of a tie-tamping machine.

"It is all down grade from the summit of the Cascade Mts. to Auburn," he writes. "Our train had 36 cars and a caboose. We were drifting at about 30 miles per hour. The engine whistle was sounded for a road crossing half a mile to the east, when Davis noticed two men working on a short piece of straight track. One man ran to assist the other two at what proved to be a jack under the rail. When the jack was removed and the fellows were in the clear, everything seemed to be okay.

"But suddenly we approached the tie-tamping machine itself on a left-hand curve. It was set up against a 10-foot sloping gravel bank and barely clear of traffic. I saw

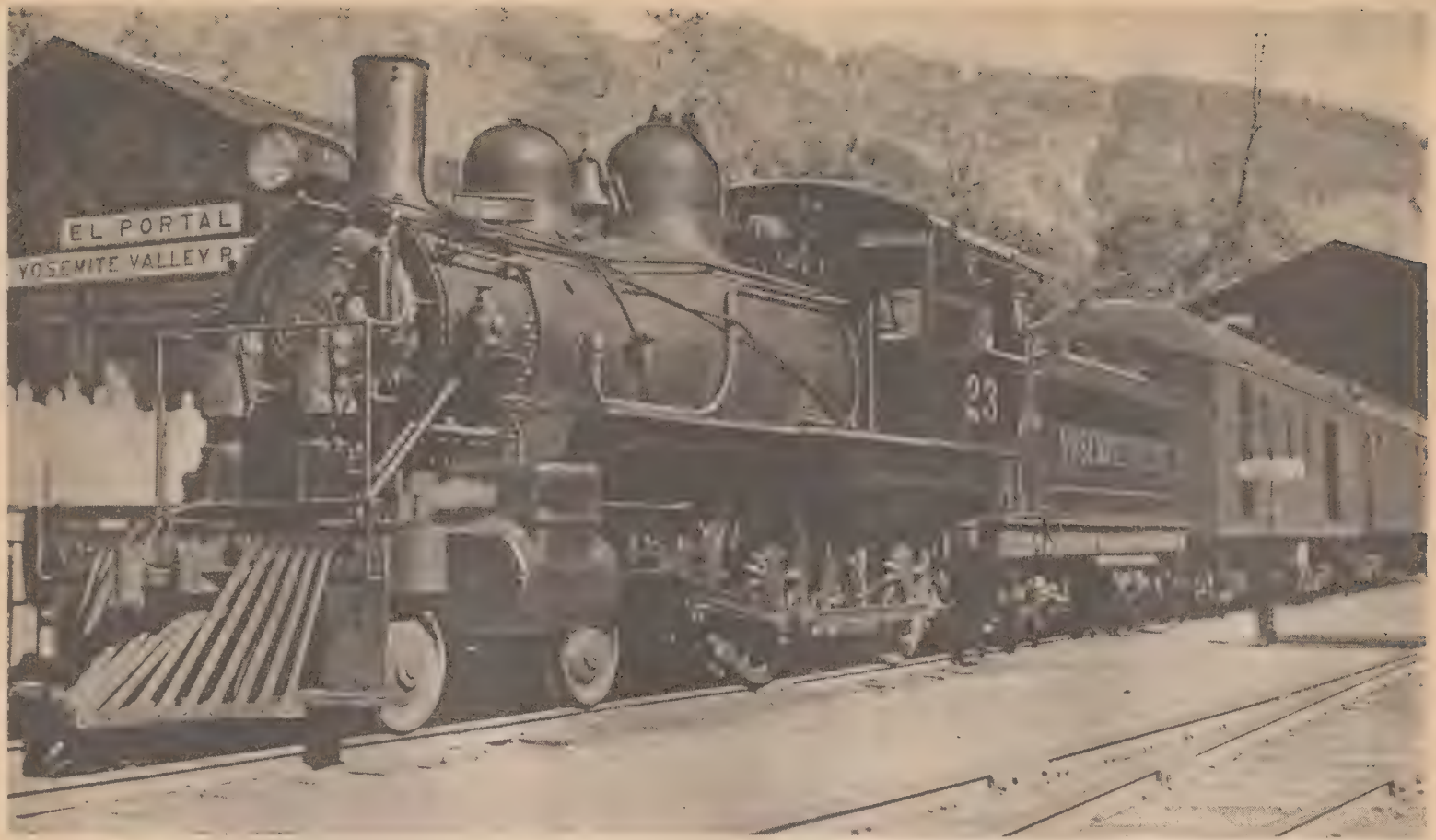
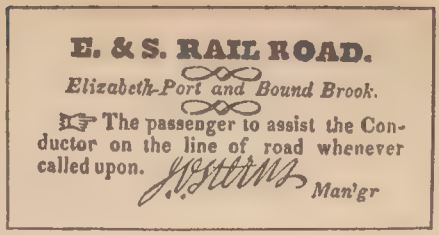


Photo by F. Clifford Hanchette, 419 N. Encinitas, Monrovia, Calif.

IT ISN'T OFTEN we see pictures of Yosemite Valley Railway, which operates trains the 78 miles between Merced and El Portal, Calif., and busses the 15 miles between El Portal and Yosemite. The company has 8 locomotives, 280 freight cars, 8 passenger cars

a man come down the bank and board the machine. Naturally I thought he knew we were approaching, but I rang the bell anyhow. As I did so, he turned and took a couple of steps in the same direction we were traveling. He seemed to hesitate. Then he did something to the machine with his left hand. I thought: *Old boy, you have more nerve than any other section man I've seen. And I've watched some reckless ones stay exposed to danger till the last possible second.*


E. & S. RAIL ROAD.
Elizabeth-Port and Bound Brook.
The passenger to assist the Conductor on the line of road whenever called upon.
Man'gr

QUAINT old passenger ticket

"It did not occur to me that he might not have heard us, or I would have told Davis to blow the whistle. After the man had adjusted his machine and before you could say 'Jack Robinson,' he stepped down to what he apparently believed was the track. But it wasn't the track. Our pilot beam had caught him in mid-air, his step not completed.

"He was thrown against a barrel filled with water and I saw it fall to pieces. One of his hands was split open between the fingers. We stopped immediately, of course, hustled the man aboard our caboose, and made a fast run to Auburn, 12 miles away. A doctor was waiting there at the yard switch.

"Now, here is where the split second came in. If the victim had stopped a split second sooner he would have been right in front of our engine. If he had stopped a split second later, because of proximity to the tie-tamping machine, he inevitably would have stepped into the side of the low-pressure engine."

Mr. Cunningham, whose hobby is building model railroad equipment, says the man is still living, so far as he knows, and that he himself would like to hear about other close calls.

* * *

SPEED SURVEY by Donald M. Steffee, which we published last month, reported with facts and figures some magnificent records made in 1943 by the railroads of the States and Canada but, of course, did not attempt to tell the whole story. Some additional data on American roads is given by Robert S. Henry, author of the recent book *This Fascinating Railroad Business,* as follows:

In 1943 the railroads performed approximately 725 billion ton-miles of freight service, compared with 333,438,000,000 ton-miles in 1939, an increase of 117.4 per cent. In 1943 they performed approximately 85 billion passenger miles of service, compared with 22,651,000,000 passenger-miles in 1939, an increase of 275.3 per cent over 1939.

Since the U. S. entered the war in December '41, organized Army groups have traveled 24,338,000,000 passenger-miles (1943 estimated at 14 billion passenger-miles) on the railroads of the country. The railroads moved 32,675,000,000 ton-miles of Army freight and express in 1942 and an estimated 60 billion ton-miles in 1943. The Army freight figures are exclusive of lend-lease material, while the passenger-miles do not include such other military personnel as the Navy, Marines, WACS, prisoners of war, or soldiers traveling on furlough.

* * *

EVEN before Pres. Roosevelt took over the roads temporarily, the Army was enforcing a maximum limit of 30 m.p.h. on freight and passenger trans between Wilmington and New Bern, N. C., 70 miles, reports Pvt. Henry Wagner, Medical Detach., 465 AAA(AW) Bn., Camp Davis, N. C. This limit had been in effect for years, because the roadbed is largely sandy soil; but when Camp Davis was built, railroad company ruling was backed by military decree.

* * *

AIRBRAKE EXAM. "In 1887 I landed at St. Joseph, Mo., completely broke and discouraged," reminisces G. Morgan Miller, Rte. 37, Box 68, Glenwood Drive, El Paso, Texas. "I wrote home for money enough to take me to Chicago; but instead of sending cash, my father advised me to contact Dave Winton, trainmaster on the St. Joe Line, at Kansas City. This I did. Mr. Winton gave me a job on a combination baggage-coach between St. Joe and Atchison, Kansas."

Later Miller took a job braking between Omaha and K. C., but quit at the time of

FORMER Lake Shore car on the Des Moines & Central Iowa, snapped by a DM&CI employe, Roland Kimmel, 2121 Harding Road, Des Moines

the Burlington strike of '88, and soon found himself firing on the CM&StP out of Chicago. Ten years passed. Miller began working for the C&GW in '98, but the next year he was hauling iron ore for the DM&N, and then drifted over to the Northern Pacific and the Great Northern. Still restless, he wandered down to Mexico, where he was made road foreman of engines and then master mechanic. In 1906 he settled in El Paso and has been there ever since.

"When the ore season ended," Miller recalls, "engineers off the ore roads could go anywhere and get work. I took a job on the Illinois Central out of Champaign, Ill. One day the airbrake instruction car came to our roundhouse and the master mechanic assigned eight engineers, including me, to take exams there. The idea of an airbrake exam was new to me, but I went along with the others. Mr. Davis, our instructor, talked a while. Then he unexpectedly told me to give the men their exams, as he had other work to do. Was I flabbergasted! I said I'd never in my life examined anybody; but he declared, "You're not too old to learn." So I went ahead. It was the first time that any of the eight engineers present had ever seen such a car, but I managed to get by. I asked various questions and explained the answers. It was a strange experience for me to play schoolteacher."

* * *

BINGHAM & GARFIELD 0-8-8-0 engines 103, 104, 107 and 108 are still in service pulling copper ore, despite published reports to the contrary, asserts Pvt. Chas. M. Wyatt, 3722608, 501st Trng. Group, Squad 4, ORTC, Barracks 1232, Kearns, Utah, who adds that when his squad hikes along the right-of-way they often see those engines.

Covered turntables, while generally rare, may be seen on the Canadian Pacific at several points, including White River, Schrieber, Chapleau and Cartier, Ont., we learn from Louis Desrosiers, 5627 Canterbury Ave., Montreal, Canada, who worked last year on a CPR signal gang.

Coffeyville, Kansas, is not on the Rock Island and never was. Several railroaders have written in to correct this error in our January issue, page 14, slapping 10 brownies on our record.

* * *

FINALLY, we come to the results of our monthly "straw vote." As you know, readers indicate which stories, articles, departments and photos they like best. Some clip the Reader's Choice coupon *(page 145)*; others write their choice on cards or letters. Below is February's popularity list, lined up according to the number of votes received:

1. Single Track, *Johnson*
2. True Tales of the Rails
3. Return of Eddie Sand, *Bedwell*
4. Light of the Lantern
5. High Wheeler, *Dellinger*
6. On the Spot
7. Electric Lines, *Maguire*
8. Tionesta Slim-Gage, *Richardson*
9. Dispatcher's Tools, *Josserand*
10. Railroad Camera Club
11. Locomotive of the Month
12. Model Railroading
13. Along the Iron Pike, *Easley*
14. Locomotives of Tionesta Valley
15. The Countess Travels, *Dalrymple*

"Best" photo was the Norfolk & Western winterscape on page 44, showing a freight winding through snow-covered Virginia hills. Runners-up were the pictures on pages 50, 45, and 21.

Next month: "Largest Anthracite Carrier," illustrated story of the Reading Railway, by Freeman H. Hubbard

It has taken some doing to handle the war load thrust upon the railroads — more than twice as much freight and nearly four times as much passenger traffic as in ordinary times.

And, because of other war needs for materials, it has had to be done with very little additional equipment.

But with the good sportsmanship of travelers and the surpassing aid of shippers the job is being done.

Doing it, though, demands that the railroads use every piece of serviceable equipment or equipment which can be made serviceable. And so they've got everything working now to do the job that must be done now.

But there's still a job ahead — first and foremost, a growing war job, and after that the work of making these railroads ready for the service of the America of the future.

That's why the railroads are not only working but are studying so as to keep ahead of their appointed tasks — to meet the nation's war needs now, and later to provide for peacetime America the finest transportation that experience, plus modern materials and science, can devise.

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Railroad Camera Club

THERE'S a great day coming in rail photography—after the war. New cameras, new films, new locomotives and new trains. But, best of all, a new conception of picture taking. For more and more hobbyists are coming to recognize the forcefulness of close-up patterns: sunlit valve motion; a gauntleted hand on the throttle; low-angle view of a pilot. Western Maryland's 1200 (left) makes a fit subject for such a study.

ITEMS in this section are published free, in good faith, but without guarantee. Write plainly on a separate sheet or card containing name and address. Do not bury your *Switch List* entry in a letter dealing with other subjects. Include all essential details briefly.

Redball handling is given to each item we get the first six days of each month, if accompanied by a Reader's Choice coupon (clipped from page 142 or home-made).

Use the abbreviations and photo sizes as listed in this department last month.

(R) indicates desire to buy, sell or swap back issues of *Railroad Magazine*. (Specify condition of all magazines.)

(*) indicates juicefan appeal.

When writing to anyone listed here, enclose a stamped env. for reply. If you do not get an answer, it may be because the man was called for military service.

The Switch List

RALPH ALVAREZ, 138 Woerd Ave., Waltham 54, Mass., has top. maps of N.E. or assorted cash fare receipts to trade for N.Y., N.J., or Pa. top. maps. Write.

KENNETH BAINES, 1 Canterbury Park, Pointe Claire, Que. Canada, wants old CPR, CNR, GTR, CNorth. tts. before 1940, pref. 1880's-90's. Will trade CN and CP loco pix for Amer. RR pix. Canadian fans write.

(*)GEO. BASCH, LIRR Gateman, 64 Autumn Ave., Bklyn. 8, N. Y., offers following trolley pix, size 616, 10c ea.: B&QT 6112, 1134, 8311, 2537, 4559; TARS 378, 632, 552, 1053, 830; PTC 4050, 2604; P&W 170; S. Bklyn. Ry. Co. 9113, 9135; CT Co. 518; PSNJ 2654; Conn. Co. 1887, 548, 1905; PST Co. 65; Fairmount Pk. Transit 30, 4, and Line Car 200. No stamps.

REX BEACH, 112 S. Mill St., Waterville, Minn, will buy CGW pix and *Off. Guide* or CGW tts. before 1930. Send stamp for list of pix, tts., and *Model Builders*.

(*)F. H. BEBERDICK, 2386 Linden Ave., Columbus 3, O., buys any size pix C&LE, IPS, Ind. Service Corp., and L&N roster.

L. A. C. BENT, R.A., R-218345, No. 8 Bombing and Gunnery School, RCAF, Lethbridge, Alberta, Canada, former CNR Saskatoon Div. op, would like to hear from railfans.

(R)BRUCE BOWDEN, 26 Sterling Rd., Waltham, Mass., wants pix of B&M 2900 series; also Apr. '33 *Railroad Magazine*, Dec. '35 *Model Railroader*, Aug. '38, June '39 *Model Craftsman*. Buys and trades B&M pix. List and samples 10c. Send postage for reply.

(R)J. D. BOWSEY, Morning Sun, Ia., offers all *Railroad Magazines* from Jan. '35, some extras to date, good cond. Also, *Machinist* from same date. Wants guns, ammo., comp., loading tools, machinist tools or cash.

ENR. BROWN, 1132534, 445/65 Field Rgt., R.A., C.M.F., will send European ticket for any size loco pix. Railway magazines wanted. (Must be sent 1st class mail).

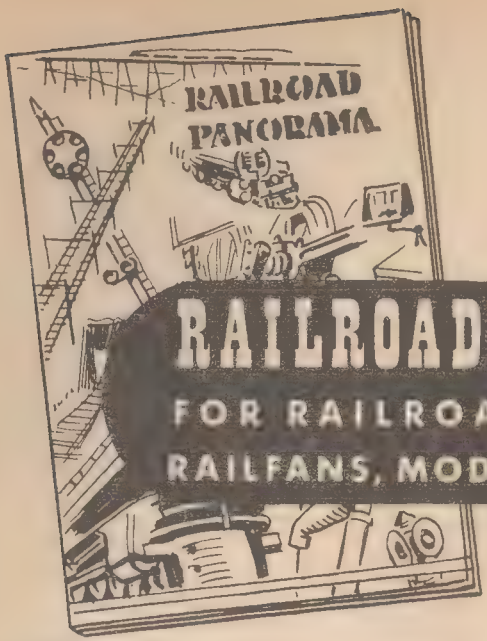
Pfc. L. S. BROWN, 39912502, 23rd Co., 1st S.T.R.-ECC 39, Ft. Benning, Ga., wants p.c. or 116 pix of C&S n-g, WP&Y n-g, D&RGW std., n-g., B&M, CV; also, tr. ords., tts., and yard forms. Would like to hear from fans publishing bulletins, news letters, and fans in service overseas.

TEDDY BURKETT, 365 S. Detroit Ave., Toledo 9, O., age 12, saves trfs., tokens and pix. Send 5c for pix list. Would like to hear from Ohio fans.

W. E. BUSH, 2840 Washington St., Chicago 12, Ill., will sell round trip passes on KCM&O, '27; WMW&N, '23; T&P, '23; also, KCM&O insurance policy with Orient emblem and booklet, '27. Passes $1. ea. Policy $1.50. Lot for $4.

Pfc. C. C. BUSKIRK, 394th Base Hq & A.B.Sq., Cp.

(Continued on page 138)



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24. TRAINS, the monthly illustrated magazine about railroads and railroad travel. Year's subscription, 12 issues, **$2.50.**

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26. Model Railroader Cyclopedia, 1944 Edition. Larger, more complete than ever! New Features! Contains short text material on modeling methods; basic signaling circuits are also given. Cloth binding. **$3.00.**

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Springs AAF, Washington, D. C. 20, home town Big Rapids, Mich., would like to hear from railfans.

C. L. CALDWELL, RD 1, Hanover, Pa., will pay good price for green rr. lantern.

(R)WM. CLASON, 10106 Curran Ave., Cleveland 11, O., will pay $4. ea. for May and Nov. '07 *Railroad Man's Magazine*, unclipped. *(Editor's note: Clason is reliable. However, if any reader prefers to have us act as middleman in dealing with him, send us either or both of the old issues. We'll collect money from Clason and forward it to you, free of charge.)*

E. S. COLEN, 6812 Chestnut St., Upper Darby, Pa., will sell 15 original pix, 8x10, of PRR eqpt. on floats at 1876 Phila. Cent. for $5.50; also, 5 pix views, 5x7, of N. Y. City 6th Ave. El, $4. Has many rr. relics for sale.

E. D. CULP, 1976 S.E. 23rd Ave., Portland 15, Ore., will exchange SP tr. ords. for any other N. American lines.

(R)G. B. DALY, 2279 Loma Vista St., Pasadena, Calif., will sell *Railroad Magazines*, covers, no cutouts, Jan., Feb., Apr., May, July through Nov. '39; Jan., Mar., Apr., Oct., Nov., Dec. '40; Jan. through Dec. '41, 25c ea. postpaid. Feb., Mar., May through Oct., Dec., '42; Jan. through Dec., '43, 35c ea. postpaid.

(*)TOM DESNOYERS, 167 E. Road, Glen Ellyn, Ill. will trade or buy pix of PE, Key Sys., LA Rys., M. St. Rys., S&N, TCRT; offers CSL, CNS&M, CA&E, TMER&T, CWT, CRT. Will trade subway, CSL, CRT maps for those of your city.

CHARLES E. DITMER, 3987 Arcanum, O., wants old-time loco pix.

(R)FRANCIS DORNEY, 15 West St., Bellows Falls, Vt., has trolley pix of Bellows Falls, Rutland, Burlington, Poultney, Brattleboro, Nashua and Calais, Me. Send 3c for list. Many *Railroad Magazines* for sale.

(R)NORMAN L. DOUGLAS, Box 3352, Brentwood, Calif., wants *Railroad Magazines* before Jan., '39; also, *Trains* before Feb., '43. Sells SP tr. ords. 10c per doz; buys tr. ords. from all roads or will trade for SP. Buys PE, SP and AT&SF pix; sells 116 size pix, 25 for $1., and p.c. size $1. for 18.

(R)R. J. DUNNIGAN, 1141 Huffman Ave., Dayton 3, O., offers *Railroad Magazines* June, Aug., Sept. '38; all '39 except Oct.; Jan.-Apr., Sept.-Dec., '40; all '41, '42, '43. Covers missing on Aug., Sept., '38, Jan., Feb., '39; also, *Off. Guides* Jan., July, Oct., Dec., '41, Dec., '42, May, '43. Magazines 15c ea. Guides 50c ea. and frt. Wants 616 or p.c. pix *Triplex* engs.

EMERY EDER, Box 766, Berkeley 1, Calif., has, for sale or trade, steam, gas, elec. loco, scenic RR pix, complete frt., streamliners, pass. trs. in black and white, color (in 35 mm only), 16 mm strips or 50 ft. lengths; also, other pix incl. table top pix. Exchange equal value. Write first.

DUANE G. FRANZ, R.R. 1, Kaukauna, Wis., sells booklets, 3x12 in., of 16 C&NW and 6 CStPM&O semi-scaled drawings of locos, incl. nos. and tender capacity of ea. for $4. Locos for $2.50 and nos. for $1.50. Postage paid.

HIRAM GELLER, Box 27, Jessup, Ind., will trade French made Transit, brass cross-hair compass, no tripod, cost $65. for Lionel tr., pref. streamliner; also, trackside signal, crossing light, bell-ringer.

WILLIAM GOLLBERG, 1614 N. 53 St., Milwaukee, Wis., will trade pix, size 116, 127 of Milwaukee *Hiawatha*, DSS&A, Soo, CNW, for pix of ACL *Tamiami Champion*, Southern *City of Miami*, NYC *20th Century*. Write for info.

(*)GERRARD GRAHAM, 2439 Funston Ave., San Francisco, Calif. wants negs. of Tacoma and Seattle Interurbans.

ROBERT F. GRAY, 1617 Jay St., Port Huron, Mich., has RRB envelopes, small roads, to trade for annual passes, st. car tokens, rr. pencils, book matches. Send material; satisfaction or material returned.

WILLIAM GRIMM, 204 Gregory Ave., W. Orange, N. J., wants Pennsy emp. tts., tr. ords., and rulebook; also, switch keys, any road, and Dec., '40 *Trains* in good cond. Pennsy fans, write.

J. L. HOFFMAN, 545 S. Peoria, Tulsa, Okla., wants to buy pix, 116 or p.c. steam short lines. Write, will send list.

(R)ALFRED HOLCK, 2226 S. 20 St., Lincoln 2, Neb., wants to trade *Popular Science* mags., '37 to date for back issues of *Railroad Magazine* in good condition. Will buy old CB&Q loco pix, size 116 or larger.

CALVIN HOLMES, 807 McKinley Pl. S., St. Cloud, Minn., wants RR menus from B&O, C&O, Reading, Erie for GN, Milwaukee, NP, PRR, NYC, C&NW; also, GN tr. ords.

ELMER E. HOSIER, 542 E. Washington St., Pasadena 6, Calif., wants to buy loco pix Fall Brook Ry., any size.

J. K. HOWARD, 2238 S.W. 24th Terrace, Miami 33, Fla., will sell Civil War $100. bills, showing tr. at 25c ea., four old bills showing locos or trs., $1., five postage stamps showing trs. or locos, 15c. Miami, Coral Gables, Opa-Locka tokens, three for 30c.

MERLIN HUTSELL, 1803 E. Chestnut St., Springfield, Mo., wants to buy any size or date pix of Frisco or C&EI.

HARVEY HYRY, 1658 N. 145th St., Seattle 33, Wash., will buy any size pix of old DM&IR locos.

REDMOND JAMES, c/o Despatching Office, Newfoundland Railway, St. Johns, Newfoundland, offers Newfoundland Ry. loco pix, size 120, 10c ea. plus postage.

BOB JENNINGS, 108 Grove St., Putnam, Conn., will trade or buy at 5c ea., pix size 116-616 of these roads: B&LE, D&SL, D&M, GB&W, L&H, L&NE, M&P, MidT, W&LE. Write nos. of cars or engs.

STUART KELLY, 323 Maple St., Vinton, Va., will trade old RR scenes; wants old calendars with Currier & Ives rr. scenes.

(*)R. D. KIMMEL, 2121 Harding Rd., Des Moines, Iowa, has p.c. size pix of present and past eqpt. on Iowa juice roads, incld. MC&CL, WCF&N, CCW, ISU, Iowa Transfer, DM Ry, DM&CI. Incl. steam locos used in past years. Send 3c stamp.

D. H. KIRKWOOD, B&O agt-op, Foxburg, Pa., wants negs., plates, or pix of Bells Gap No. 4, Balto. & Lehigh or Md. Cent. No. 6, D&RG 150 *Silverton*, Connotin Valley Ry. 2-8-0, PN&LE (later P&W) n-g., Emlenton & Shippenville, Parker & Karns City, Garfield & Cherry Grove, TV&C 5 and 6 or 25 and 26, B&O n-g., Pittsburgh & Western, Tionesta Valley, BB&K n-g., S&NY 108, S&T 10, B&O 303, 707.

(R)S. G. LAND, 2921 3rd Ave. S, Minneapolis 8, Minn., will buy uncut back issues of *Railroad Magazine* before 1933 or complete file to date. State price, cond.

(R)W. D. LAVASSEUR, Argyle, Wis., offers *Railroad Magazine*, Dec. '39 to date except Sept. '42 (first two issues do not have Model Dept.); *Off. Guide*, Apr., '41; *Transportation*, Dec. '27; *Railway Age*, Sept. 24, '27 less cover and Sec. 2, July 23, '27; *Model Builder*, Dec. '38; *Trains*, Dec. '41 (exc. cond.); *Model Railroader*, Feb. '37, Mar. '39; *Model Craftsman*, Jan., May, Dec., '38; all '39 except Aug., Sept., Dec.; Jan. through Sept. '40, except Mar.; July, Oct. '43. Incl. postage in offer.

ARTHUR W. LEE, 1259 Jackson Ave., Lakewood 7, O., wants street RPO pix and negs.

KLINE G. LIMBERT, correct address 1322-16th St., Denver, Colo.

(*)S. D. MAGUIRE, 304 2nd Ave., Bradley Beach, N. J., wants pix of Long Island trolleys, NY&LIT, NY&NS, Huntington, Northport, Suffolk County, Sea Cliff, Glen Cove and others beyond N. Y. City. Also wants pix of City Island monorail line. Offers many rare p.c. and 616 size juice shots from anywhere in U.S.

(R)ALBERT J. MALACK, 10530 Edbrooke Ave., Chicago 28, Ill., will sell *Railroad Magazine, Model Craftsman, Model Railroader, Model Builder* for half original cost. List for stamp.

FRANCIS MEANEY Jr., 68 Charles St., Metuchen, N. J., has emp. tts. for sale, incl. PRR, LV, B&O, CRRNJ, LI, Rdg., Wash. Term., NYC.; selection of PRR divs. Also, *Off. Register of Pass. Tr. Eqpt.* Write. Wants emp. tts. of steam roads.

DELMER MILLER, Lock Box 3, Pekin, Ill., has these tickets issued by M&O: 3, to World's Exposition

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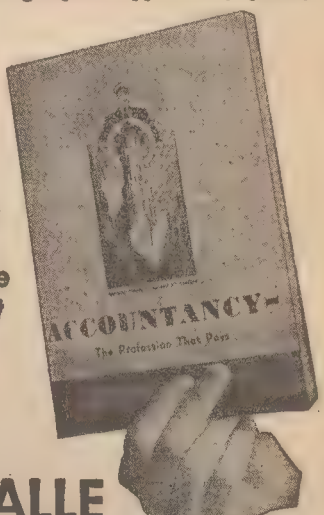

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in New Orleans, May 17, 1885; 2, May 6, 1885; 1, May 7, 1885; 1, issued account football game; 4 scrip issued by U.S. RR Administration; to trade for loco pix or model HO gage tracks.

(R)WM. J. MILLER, 15219 Regina Ave., Allen Park, Mich., offers 1937-1942 incl. *Railroad Magazines* for $12. postpaid; also, cash for negs. of Wabash locos, 116 size or larger, pix of Wabash open-end coaches, DT&I elecs, locos of all old northern Mich. roads.

(R)G. T. NELSON, 214 S.W. 139 St., Seattle, Wash., will sell *Railroad Magazines* (won't break sets) as follows: 1939, compl. exc. Dec.; 1938 compl. exc. Jan., May; 1942 compl. exc. Mar., Apr., May; 1941 compl. exc. Feb., Mar. Misc.: Dec. '42, '43; Sept. '40; Dec. '39; Aug., Sept., Oct. '37; Feb., Mar. '41; Mar., Apr., May '42.

ROBT. OLSON, 1622 N. 9th St., Tacoma 6, Wash., wants pix of C&S n-g, pref. 5x7 in.; also, emp. tts. and info.

(*)Lt. RALPH M. PARK, Kemper Military School, Boonville, Mo., offers IC, CMStP&P, CNS, Milw. El. size 116 pix; also, misc. RR and 5x7 in. pix 1942 MKT wreck. Size 116 10c; 5x7 in. 25c. Want old 4-4-Os, old rail scenes.

ERNEST S. PEYTON, Box 443, Ft. Collins, Colo., will buy or trade size 116, 616 pix of UP 2800s, 4-6-2 type, and rr. passes; also 116,616 or p.c. size pix of locos on n-g Colo. roads.

(R)HAROLD L. PHILLIPS, Box 241, Millis, Mass. will sell Jan. '44 issue *Railroad Magazine*, 15c; p.c. size pic New Haven No. 714 with caboose, 10c; tts., 5c ea.; *Modern Locomotives*, 5c; 1930 *Locomotive Progress*, 20c; same, 1932, 10c.

(R*)ERNIE PLANT, 3226 E. 26th Ave., Vancouver, B. C., Canada, will trade back *Railroad Magazines* for Apr. '43, June '39, June '37 issues; will sell size 116-616 pix of CPR and CNR locos, BCER St. cars, inter.-elec. locos., cabooses, PGE locos and coaches, 20 for $1.25; complete set of CP and CN for $50.; will trade 2 pix for 1 CP neg.; year's issue of BCER *Buzzer* and set of trfs. for 2 10c defense stamps to cover postage. Enclose postage for info.

W. W. PRUDHOMME, 610 Garfield St., Lafayette, La., will trade SP and old loco pix for those of any road.

PETE RASMUSSEN, Sutphin Ave., Matawan, N. J., wants pix Stewartstown RR steam loco, HT&W No. 5 and Due West No. 3; also, CWRR, E&M Ry., Warrenton RR, Milstead, Augusta, Sandersville, Manistee & Repton RR.

(*)ALBERT REMALY, 351 Broadway, Bethlehem, Pa., has size 116 pix and negs. of Va. P&E Co., LVT Co., Phila. & Western, Phila. Suburban Transit Co. 10c ea., 3 for 25c. Write for neg. details.

E. R. RICHTER, 28 Rockaway Ave., Bklyn. 33, N. Y., wants loco pix, especially Eastern old timers. Former correspondents write.

H. W. ROUSE, Jr., 2501 W. Lombard St., Baltimore 23, Md., will buy or trade pix or negs. of Western Maryland locos, especially old WM locos and negs. of 770-789 class; also, affiliated lines, WVaC, GC&E.

JACK RYAN, 5055 N. Wolcott Ave., Chicago 40, Ill., will sell scrapbook of rr. clippings and p.cs., $1.50; also, Dec. '42-Dec. '43 *Popular Mechanics*, good cond., $2. Both postpaid.

EDWIN SCHELL, 2855 St. Vincent, St. Louis 4, Mo., has collection of 4000 trfs. in loose-leaf books to trade for copies of *Elec. Ry. Journal, Official Guide* (pre 1935), other elec. ry. mags. (Note: disposal of this set does not affect my 16,000-item collection; still trade trfs., maps, info.)

(R)FRANK SCHOERNER, Harness & Saddle Shop, Meeteetsee, Wyo., wants Mar. '37, July, Aug. '42, June '43 *Railroad Magazine;* also rr. circus pix, circus teams, wagons. Enclose stamped envelope when writing.

Pvt. PAUL SEGAL, 31030161, 59th Chem. Maintenance Co., Camp Campbell, Ky., wants tokens of all kinds; will buy, or trade Currier & Ives RR prints, Army insignia.

Pfc. WARREN D. STOWMAN, ASN 33478498, Hqtrs Batry., 371st A.A.A. S/L Btn., Portsmouth, Va., wants pix of Camelbacks on International of Mexico; can trade Rdg., PRR, LV pix.

D. VOSE, 7703 Washington Blvd., River Forest, Ill., will buy p.c. pix of Soo Line Consolidations.

E. A. Webb, 1705 Woodlawn Ave., Logansport, Ind., has 116 size pix of Monon, Nickel Plate, CCC&StL, NYC, PRR, Wabash, B&O, GTW, etc., 20 for $1. cash or m.o. only; list and sample 10c; wants p.c., 116 size negs. of the above.

FLOYD W. YEATS: new address, c/o Mrs. F. W. Yeats, 1604-15th St. East, Calgary, Alberta, Canada.

Model Railroading

WANTED: Patriotic readers are asked to donate new or used model railroad equipment of all kinds to an unusual club now being formed by the Special Service Section of the Orlando, Fla., Air Base. According to Cpl. Robert Hoffman, Air Base Travel Agent, to whom donations should be sent, this is the only club of its kind formed solely by and for U. S. Army men.

"To us in the Air Corps," he writes, "model railroading is an instructive hobby as well as a great morale-builder. We look to the home front for help. You fellows should buy War Bonds, of course—plenty of them—they're a good, safe investment from which you will reap profit. But also assist the war effort in ways where you will *not* get a financial return. There are many such ways. One of them is sending pieces of much-needed equipment to the boys at this Air Base."

* * *

ANNUAL EXHIBIT of the Metropolitan Society of Model Engineers will be held from April 18 through May 21 in National Museum of Science and Industry, Washington, D. C.

* * *

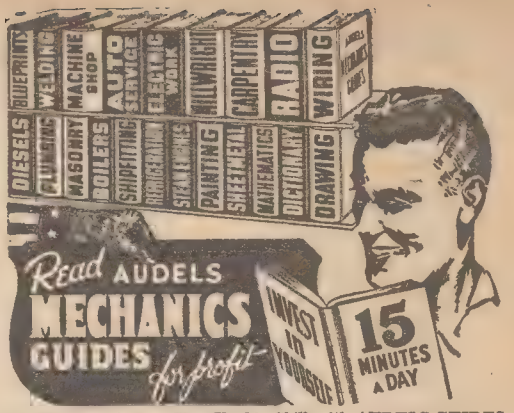
HERE'S AN OFFER to model makers who are interested in building the "ersatz" Pacific type described in the Nutsplitter's article (February *Railroad Magazine*). Charles H. Reynolds, owner-operator of the "Central Hudson RR," has a lathe on which he'll be glad to turn down boilers for the K-5 model, if readers write and request them. His price—cost of material, power used, and postage. Charley's address is Box 199, Rutledge, Pa.

NEXT month's *Railroad Magazine* will carry additional details about that "ersatz" Pacific.

* * *

VIC NEAL, railcamerist and model builder of Wellsville, N.Y., says our *Model Trading Post* is "truly a life-saver, since it enables us to get many items not otherwise obtainable." He stresses the problems that model fans are up against these days because of the shortage of parts and materials, and urges readers to submit tips to be published, telling how they get around these shortages, necessity being the mother of invention.

"For instance," he adds, "I learned re-



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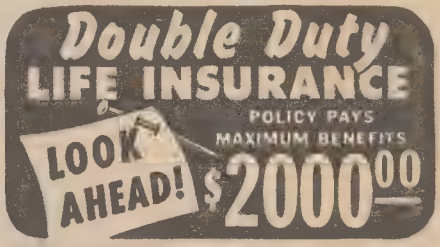

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Reader's Choice Coupon

Stories, features and departments I like best in the April '44 issue are:

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205 E. 42 St., New York City 17

cently that motors from auto heaters and horns can be adapted to model locos. Small worm gears from musical instruments such as banjos and mandolins work very well in the model field. Certain type of ordinary houselight switches make excellent hand-operated switch machines. An auto generator can be used as a swell source of direct current for a model layout or can be turned into an efficient 110-volt motor for driving power tools, etc."

Model Trading Post

LISTINGS here are free. Keep 'em short. Because of time required to edit, print and distribute *Railroad Magazine,* all departmental material should be sent to the editor seven weeks before publication date. Every *Trading Post* entry must be accompanied by the latest Reader's Choice coupon, clipped from page 142 or home-made.

CHARLES M. BAER, FIC, USNR, 22nd Construction Batn., c/o Fleet Post Office, San Francisco, Calif., wants Lionel T-rail track.

M. D. BELL, 169 N. Whitesboro St., Galesburg, Ill., wants locos, cars, track, for small HO-gage outfit; send lists.

EDGAR P. BILLUPS, JR., Canton, N. C., wants AF Northern pass. loco in good cond., with built-in choo-choo and mail pick-up car.

Pvt. HARVEY A. BINAU, 38181848, Co. B, 80 U.S.T. R., Camp Crowder, Mo., will pay cash for std. gage eqpmt., scale or tinplate, any cond., pref. locos in operating order.

E. L. BLAIR, 1534 Silver Springs Blvd., Ocala, Fla., will sell these items, all good cond. or new: 700E Lionel Hudson loco, 10 frts., caboose, 200 feet ¼ and 3/16-in. steel rail, brass rail, ties, spikes, etc.

JACK CLARK, 2935 N.E. 54th Ave., Portland 13, Ore., wants steam or elec. Maerklin O-gage locos, pref. RV, CS, HS, or GR 66/12920. State age, cond., type; older okay if cond. good.

NORMAN DOUGLAS, Box 3352, Brentwood, Calif., will sell G.E. Scalecraft OO power truck for 2-rail, good cond., cost $9.50, for $8.; also 50 feet tie-strip, $3.; wants OO loco, rolling stock.

WILLIAM EDDY, 76 Woodland Ave., Saratoga Spa, N. Y., will buy AF str. track, switches, locos; send prices and cond.

ERIC FLEMING, Box 450, RFD 5, New Brunswick, N. J., offers cash for Lionel *Flying Yankee,* 610 coaches, 95 rheostat, AF *Hiawatha* power car, locos 427, 431, 434, 436.

K. E. GOODSPEED, Box 212, Schroon Lake, N. Y., will buy elec. O-gage eqpmt., str. track, switches, cross-overs, etc.; send list.

CLARENCE GOUGER, 29 Clinton St., Newton, N. Y., wants mechanical O-gage loco and pair of switches.

Dr. GLEN HARRISON, 307 Washington St., Waukegan, Ill., will buy old style toy U. S. or German-made locos, cars, trolleys, autos, boats, steam engs., any cond.; also Ives, Lionel, AF std-gage sets, round-house, O-gage trains, any cond.

WALTER E. HOXIE, 150 Stewart St., Providence, R. I., wants O-gage, tinplate switches, str., cvd. track, transfmr, signals, Lionel loco, tender, pass., frt. cars with auto-elec. cplrs, Lionel catalogs; cash or trade.

MERLIN HUTSELL, 1803 E. Chestnut St., Springfield, Mo., will sell 2 six-in. Lionel pass. cars, AF boxcar, Marx 554 NP hopper, 2 Marx 027 switches, Marx 027 truck, 11 str., 10 cvd. track, AF 25-watt transfmr, Marx UP streamline cars and loco body.

JOHN G. JONES, 2701 Lincoln St., Anderson, Ind., will buy O-gage track, switches, accessories, pref. Lionel.

FRANCIS KARN, 2713 S. 13th St., St. Louis 18,

Mo., wants O-gage trains, Dorfan locos 770 and 55, Ives 1122, 1663 locos, cars, also Ives and Dorfan catalogs before 1930; cash or trade for HO and 3/16-inch trains, 24 vol. encyclopedia.

LOUIS KATZIANER, 32 Jubilee St., New Britain, Conn., wants OO-gage Lionel cars, Lionel loco 226, AF 3/16-inch switcher, in running order; will trade AF scale eqpmt. incl. 1-3/16-in. PRR K-5 loco, ¼-in. caboose, tank car; 3/16-in. log car, caboose, boxcars 478, 506, 3 hoppers.

LEWIS KRUEGER, 15 E. Washington St., Chicago, Ill., will trade Lionel 238 PRR streamliner loco and tender new for Lionel switcher, 203 loco, 2203 T tender, or 905B outfit.

BURTON LOGAN, Ozark & Osage Rds., Tulsa, Okla., wants Carlisle & Finch, Howard, Voltamp, Knapp 2-inch gage locos, cars, track; cash or trade.

V. W. LOVINGFOSS, 1529 Glendow Way, Rosemead, Calif., will sell almost finished 1-in. scale Hudson loco. ⅛-in. copper boiler, bronze cyls., air pump; finished cab, no tender.

A. G. McDUFFIE, Box 496, San Francisco, Calif., wants Gilbert 3/16-in. scale items, Lionel 1684 loco, 127 pass. cars, AF, Marx accessories, 3/16-in. scale truck-cplrs., Ives, Dorfan, Maerklin catalogs.

WM. J. MILLER, 15219 Regina Ave., Allen Park, Mich., will buy Lionel 027 rt. auto-switch, 36-foot scale boxcar, stock car O-gage, open-end coach, frt. house, tower.

J. A. MULLIKEN, 1263 S. Peach St., Phila. 43, Pa., will buy '39, '40, '41 AF catalogs, AF O-gage r.c. switches, track; interested in AF 3/16-in. scale eqmpt.

CHARLES A. MURRAY, Maj., M.C., Station Hospital, Camp Hood, Tex., will buy, O-gage Lionel r.c. outfit, transfmr., accessories, new or used.

E. L. PAGE, R.D. 6, Wellsboro, Pa., will buy std. gage steam or elec. loco, tender, pass., frt. cars, r.c. switches, crossover, str, cvd. track, transfmrs, good cond.

R. PATCH, 1107 Kewaunee St., Racine, Wis., will buy Varney HO-gage Pacific 0-6-0 switcher or Walthers 4-6-4 Baltic; HO, partially completed kits, HO brass rail.

T. J. PELLETIER, Rte. 3, Box 39, Palouse, Wash., wants O-gage eqpmt.; will trade *Railroad Magazines*, Sept., Oct. '43; *Model Builder*, Mar., Oct., Dec. '42; Jan., Feb., '43; *Model Craftsman*, Jan., Nov. '41; *Western Railroaders*; some issues of *Crestline*; *Model Builder Handbook*.

C. H. REYNOLDS, Box 199, Rutledge, Pa., wants Buddy L eqpmt., locos, cars, etc.; cash or trade O and OO gage eqpmt.

HENRY RICHARDS, 328 Chestnut St., New Britain, Conn., will buy Lionel O-gage switches.

RUDY RUSSO, 43-33 Smart St., Flushing, L. I., N. Y., wants Lionel 701 tender, 782 and 792 coaches and vestibules; state price.

RAYMOND G. SCHAPLEY, Lamington Road, Bedminster, N. J., will sell complete Lionel std. eqpmt., incl. loco; list sent for stamp.

FRED E. SCHORR, JR., 1732 West End Ave., Pottsville, Pa., wants OO-gage eqpmt., O-gage tinplate items; cash or trade HO loco parts, Erector Set elec. motor.

Pfc. WARREN D. STOWMAN, ASN 33478498, Hqtrs. Batry, 371st A.A.A. S/L Btn., Portsmouth, Va., wants O-gage ¼-in. scale model 4-4-2 Camelback of ACRR, CRRNJ, Erie, LV, PRR, or Rdg. type; or 4-6-0, 2-8-0 type. Wants tinplate Ives 4-4-2 1122R, good cond., Ives, Lionel. AF cars, scale frts., gondolas, hoppers.

WAYNE STUART, 1268 F St., San Bernardino, Calif., will trade the following for HO eqpmt.: $16. worth of O track, $12. switches, $2.50 crossover, $3. caboose, $3. bridges; all AF new in '42. Details for stamp.

O. P. STUFFLEBEAM, 833 Derby Lane, Green Bay, Wis., wants Lionel std. eqpmt. of 1906-20 period; steam locos Nos. 5, 6, 7, 51; elec. Nos. 33, 38, 53, 42, 54; Pullmans Nos. 18, 19, 190; coach 29; frts. 11-17; also old catalogs.

ROBERT WATSON, 1005 North C St., Indianola, Iowa, will sell this Lionel std. eqpmt.; 2 locos, 7 cars, 75 feet track, 2 pr. switches, 90-degree crossover; the lot, $50. Wants HO loco or kit.

DONALD WEIDNER, Bowler, Wis., will sell pike with Lionel and Marx 027 eqpmt.; send for list only if you can pay $75.

R. A. WHITING, 328 Woodstock Rd., Fredericton, N. B., Canada, wants live steamer, pref. O-gage, good cond. Can remit U. S. funds; state price, cond.

E. M. WRIGHT, Box 246, Croyden, Pa., will sell HO 2-rail locos and eqpmt.; list sent for stamp.

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ICS

Asleep at the Switch

THE MIDNIGHT EXPRESS will be late here tonight,
So sidetrack the westbound freight.
Those are the orders that Tom had received,
As he passed through the roundhouse gate.
Tom was the switchman, with heart true as steel,
And duty was first in his breast,
But the thought of his boy, who was dying at home,
Crazed Tom, and he fell at his post.
The shrill whistle blew on the freight for the west,
The rumble was heard of the Midnight Express.

Asleep at the switch, and no warning light
To signal those trains that rushed through the night!
When down to the switch ran Tom's daughter Nell,
The crisis had passed, his boy would get well.
She caught up the light and waved it on high,
And sidetracked the westbound freight,
And the Midnight Express all in safety flew by,
While Tom was asleep at the switch.
The freight slowly backed on the main line again,
The crew called to Tom, "Good night!"
Only the sob of a girl made reply,
And they saw by the engine's light
Tom lying flat at his post where he fell,
And there, with her head on his breast,
Was his brave daughter Nell, who'd saved all their lives
And those on the Midnight Express.
Each man on the freight for the west bared his head,
For Tom's heart had stopped, at his post he lay dead.

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ONLY 3¢ A DAY GIVES YOU THESE REMARKABLE BENEFITS IN CASE OF SICKNESS OR ACCIDENT

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Don't wait for trouble to strike! Many a man's savings of years have been wiped out by a few weeks of misfortune. Take out our liberal hospitalization policy now and know that your doctor and hospital bills will be paid. Only 3 cents a day gives you a freedom of mind worth far more. Individuals or whole families (to age 70) are eligible, and you may go to any U. S. or Canadian hospital, under any physician's care.

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● Rising Costs of Leather Goods may make it impossible to repeat this amazing offer!

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Here, without a doubt, is the greatest Billfold and Pass Case Bargain that you'll be likely to see for a good many years to come. Through a fortunate purchase we have a limited quantity of these smart leather Billfolds available at this low price. If you have *shopped around*, you know that it is virtually impossible to get a good leather Billfold of this type beautifully engraved in gold with your Lodge Emblem or Army, Navy, Marine or Air Corps Insignia and Name at this sensational low price. In addition we also send you a specially designed 3-color Emergency Identification Plate, on which we engrave your Social Security Number, your Name and your Address. This smart Leather Billfold must actually be seen to be fully appreciated. Besides the spacious compartment at the back which can be used for currency, checks, papers, etc., it has 4 pockets each protected by celluloid to prevent the soiling of your valuable membership and credit cards. This handsome Billfold has the sturdy appearance and style usually found in costlier Billfolds.

● Due to difficulty in obtaining good leather because of war conditions, the supply of these Billfolds is limited. Remember, you get **3 Big Values for only $1.98.** So rush your order today! If after receiving your Engraved Billfold, you don't positively agree that this is the most outstanding bargain you ever came across, return it and we'll refund the money.

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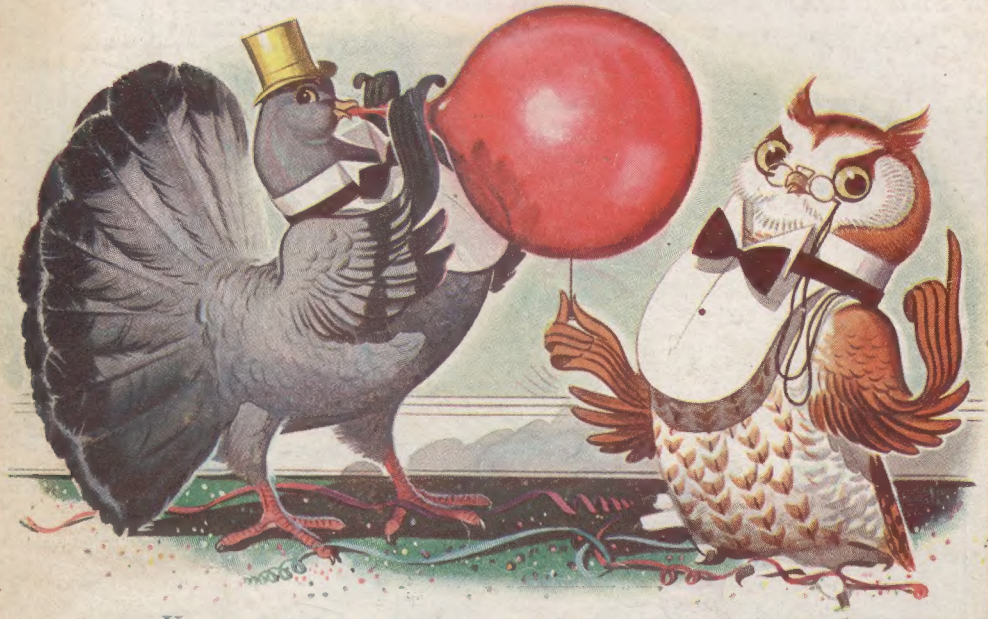
MY FULL NAME_____
(PLEASE PRINT CLEARLY)

ADDRESS_____

CITY_____ STATE_____

☐ Check here if you want us to ship the above C. O. D. for $1.98 plus a few pennies postage and C. O. D. charges. ● Social Security Number_____

Seven things you can do to stop Inflation



Keep prices down! For Victory and your own post-war security do these seven things: *1.* Buy only what you need and make things last. *2.* Pay no more than ceiling prices. *3.* Pay increased taxes willingly. *4.* Pay off old debts and avoid new ones. *5.* Live within present income. *6.* Build up savings and life insurance for the future. *7.* Buy and *hold more* War Bonds.

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